

**EFFECTIVENESS OF VIDEO ASSISTED TEACHING UPON AWARENESS
AND COMPLIANCE OF MENSTRUAL HYGIENE AMONG
INTELLECTUALLY DISABLED ADOLESCENTS**

BY

ANITHA.V.A

**A DISSERTATION SUBMITTED TO THE TAMIL NADU DR.M.G.R MEDICAL
UNIVERSITY,CHENNAI,IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE IN NURSING
OCTOBER 2017**

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AND COMPLIANCE OF MENSTRUAL HYGIENE AMONG
INTELLECTUALLY DISABLED ADOLESCENTS**

Approved by the dissertation committee on : _____

Research Guide : _____

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**A DISSERTATION SUBMITTED TO THE TAMIL NADU DR.M.G.R MEDICAL
UNIVERSITY, CHENNAI, IN PARTIAL FULFILLMENT OF THE
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OCTOBER 2017**

DECLARATION

I hereby declare that the present dissertation entitled “**A Pre Experimental Study to Assess the Effectiveness of Video Assisted Teaching upon Awareness and Compliance of Menstrual Hygiene among Intellectually Disabled Adolescents**” is the outcome of the original research work undertaken and carried out by me, under the guidance of **Dr. LathaVenkatenan, M.Sc (N),, Ph.D (N),Ph. D (HDRFs),, M.B.A., Principal,** Apollo College of Nursing and **Dr. Vijaya Lakshmi , M.Sc., (N), M.A (Psy), M.B.A, Ph.D (N)** Head of Mental Health Nursing Department, Apollo College of Nursing, Chennai

I also declare that the material of this has not found in any way, the basis for the award of any degree or diploma in this university or any other universities.

ANITHA V.A

M. Sc (N) II Year Student

ACKNOWLEDGEMENT

I thank **God Almighty** for being with me and guiding me throughout my Endeavour and showering his profuse blessings in each and every step to complete the dissertation.

I proudly and honestly express my sincere gratitude to our esteemed leader **Dr. LathaVenkatesan, MSc (N).,M.Phil (N).,Ph.D (N).,Ph. D (HDRFs)., M.B.A**, Principal, Apollo College of Nursing for her tremendous help, continuous support, valuable suggestions and tireless motivation to carry out my study successfully.

I also extend my thanks to **Dr. Lizy Sonia. A, M.Sc(N)., Ph.D.,** Vice Principal and H.O.D of Medical Surgical Department, Apollo College of Nursing for her unbroken support, elegant direction, throughout my study.

I owe my special thanks to the clinical guide, Research coordinator and head of Mental Health Nursing Department **Dr. K. Vijayalakshmi, M.Sc., (N), M.A (Psy), M.B.A, Ph.D (N)** for her valuable suggestions, efficient guidance, tenacious help profound support throughout the study and the success of this work is credited to her.

I would like to thank **Mrs.Anuradha .C, M.Sc(N) ,M.Sc.(Psy), Reader, Mrs. Stella Mary.I, M.Sc (N),Reader,and Mrs.Priya . S, M.Sc (N) ,M.Sc (Psy) Lecturer** , Department of Psychiatric Nursing , for their guidance and profound support thought out the study .

With the special word of reference, I thank all the **experts** for validating my tool and offering worthy suggestions to make it effective.

A note of thanks to the **Librarians** at Apollo College of Nursing and The Tamil Nadu Dr. M.G.R Medical University, for their help in providing needed reference materials which we required.

I would thank to concerned authorities of the school principal **Mrs. AlliMurukesan, M.Sc (psy)**, special school, Chennai, who gave me permission to conduct my study in their institution.

I would like to thank Ms. **Anusha .S Department of psychiatric Nursing**, who helped me in carrying out of my study.

I thank all the **participants** of my study for their wonderful participation and cooperation.

I would fail in my duty if I forget to thank my loved ones behind the scene. I am grateful to my parents **Mr.Velappan.K, Mrs .Ambili .V**, and my brother **Mr. Anish Kumar .V** for their support, my husband **Mr. Vinesh** in all times of ups and downs, their prayers, their blessings and their help rendered to me in completing my study successfully.

SYNOPSIS

Statement of the Problem

A pre experimental study to assess the effectiveness of video assisted teaching upon awareness and compliance of menstrual hygiene among intellectually disabled adolescents in special schools at Chennai.

Objectives of the Study

1. To assess the awareness and compliance regarding menstrual hygiene among intellectually disabled adolescents.
2. To evaluate the effectiveness of video assisted teaching upon awareness of menstrual hygiene among intellectually disabled adolescents.
3. To evaluate the effectiveness of video assisted teaching upon compliance with menstrual hygiene among intellectually disabled adolescents.
4. To find out the correlation between the awareness scores and the compliance scores regarding menstrual hygiene among intellectually disabled adolescents..
5. To assess the level of satisfaction regarding video assisted teaching programme among intellectually disabled adolescents.
6. To find out the association between selected demographic variables and level of awareness on menstrual hygiene among intellectually disabled adolescents.
7. To find out the association between selected demographic variables and level of compliance on menstrual hygiene among intellectually disabled adolescents.

The study was carried out upon 30 intellectually disabled adolescent, students at Chennai. Tools such as Demographical variable Performa, Menstrual history Performa, and Tool for assessing the awareness of menstrual hygiene among intellectually disabled adolescents, Tool for assessing the compliance with menstrual hygiene among intellectually disabled adolescents, and Rating scale on level of satisfaction of video assisted teaching were used by the researcher to collect data. The content validity was obtained from various experts and Reliability of the awareness tool was (test retest) $r = 0.8$, which indicates the reliability of the tool. The main study was conducted after the pilot study.

The level of awareness and compliance was assessed before and after video assisted teaching to the group of intellectually disabled adolescents. Video assisted teaching was administered for a 4 hour session, 2 hours each day on two consecutive days by lecture cum discussion using the video. After 40 days, the level of awareness and compliance was assessed by the researcher. Then the level of satisfaction on video assisted teaching was also assessed by satisfaction scale. The data obtained were analyzed using Descriptive and Inferential stratifications.

Major Findings of the Study

Study findings indicate that 46.7% of participants in the age group 14-15 years and belonged to joint family 70%. A majority of them were illiterates 63.3%, home makers were 80% and their income was not known 70%, had previous knowledge about menstrual hygiene 73.3%, and the source of information was from the teacher 56.7%.

The study findings indicate that, awareness was poor in pre-test 100%, where as in it was average 63.3% in the posttest majority.

The study findings indicate that, their compliance was totally poor in pre-test 100%, where us in post –test most of their compliance was average 90%.

The study findings also reveal, mean score of awareness on menstrual hygiene as higher in post test (8.5) than the pre-test score (4.06) which was statistically significant ($p < 0.001$). It can be attributed to the effectiveness of intervention on improving the knowledge. Hence the null hypothesis H_{o1} , “there will be no significant difference in the awareness on menstrual hygiene between before and after video assisted teaching among intellectually disabled adolescents”, is rejected.

The study findings revealed, mean score of compliance with menstrual hygiene as higher in post test (12.2) than the pre-test scores (6.5) which was statistically significant ($p < 0.001$). It can be attributed to the effectiveness of intervention on improving the compliance. Hence the null hypothesis H_{o2} , “there will be no significant difference in the compliance on menstrual hygiene between before and after video assisted teaching among intellectually disabled adolescents”, is rejected

The findings imply the presence of a positive correlation ($r=0.12$), ($r=0.13$) between the awareness and compliance respectively regarding

menstrual hygiene among intellectually disabled adolescents in pre test and post test (respectively).

There was no significant association between the selected variables and levels of awareness on menstrual hygiene among intellectually disabled adolescents. Hence the Ho4, “there will be no significant association between the selected demographic variables and awareness on menstrual hygiene among intellectually disabled adolescents”, is accepted.

There was also no significant association between the selected variables and levels of compliance on menstrual hygiene among intellectually disabled adolescents. Hence the Ho5, “there will be no significant association between the selected demographic variables and awareness on menstrual hygiene among intellectually disabled adolescents”, is accepted.

Recommendations

1. The study can be conducted on a large sample to enable generalization the findings.
2. The study can be conducted to assess the effectiveness of the video assisted program on menstrual hygiene as a teaching aid in health education for other differently abled children.
3. The study can be conducted to assess the effectiveness of the alternate learning modalities in improving hygiene compliance for all the differently abled children.
4. A survey can be done on intellectually disabled adolescent girls to assess the compliance and difficulties during menstruation.
5. A study can be conducted to assess the level of awareness on menstrual hygiene among care takers and teachers of the differently abled.

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APPENDIX I

LETTER SEEKING PERMISSION TO CONDUCT STUDY

From

Ms. Anitha V.A
M.Sc. (Nursing) Second Year,
Apollo College of Nursing,
Chennai – 600095.

To

Dr. Latha Venkatesan
Principal,
Apollo College of Nursing.

Sub: Requesting for opinions and suggestions of experts for establishing content validity for research tool.

Respected Madam,

I am a postgraduate student of the Apollo College of Nursing. I have selected the below mentioned topic for research project to be submitted to the Tamil Nadu Dr. M.G.R Medical University, Chennai as a partial fulfillment of Masters of Nursing Degree. **“A pre experimental study to assess the effectiveness of video assisted teaching upon awareness and compliance of menstrual hygiene among intellectually disabled adolescents in special schools at Chennai.”** With regards may I kindly request you to validate my tool for its appropriateness and relevancy. I am enclosing the Background, Need for the study, Statement of the problem, Objectives of the study, Demographic Variable Proforma, Standardized attention span, concentration assessment tool and rating scale on satisfaction of participants. I would be highly obliged and remain thankful for your great help if you could validate and sent it as soon as possible.

Thanking you,

Date :

Place :

Yours sincerely,

Anitha V.A



Apollo College of Nursing

(Recognised by the Indian Nursing Council and Affiliated to the Tamil Nadu Dr. M.G.R. Medical University, Chennai)

CO/0190/16

18.08.2016

To

The Director,
Vasantam Special School,
Mogappair,
Chennai- 600 037

Respected Madam,

Sub: To Request permission for research study- Reg

Greeting!! As a part of the curriculum requirement our 2nd year M.Sc (N) student Ms.Anitha.V.A has selected the following title for her research study.

"A study to assess the effectiveness of video assisted teaching programme upon menstrual hygiene on awareness and compliance among intellectually challenged adolescents".

So I kindly request your good selves to permit her to conduct study in your esteemed school.

Thanking you,


Dr.LATHA VENKATESAN
PRINCPAL

IS/ISO 9001:2000



Vanagaram to Ambattur Main Road, Ayanambakkam, Chennai - 600 095.
Ph. : 044 - 2653 4387 Tele fax : 044 - 2653 4923 / 044- 2653 4386



Apollo College of Nursing

(Recognised by the Indian Nursing Council and Affiliated to the Tamil Nadu Dr. M.G.R. Medical University, Chennai)

CO/0196/16

24.08.2016

To

The Secretary
Balavihar special school,
Kilpauk garden,
Chennai - 600010

Respected madam,


Sub: To Request permission for research study- Reg

Greetings! As a part of the curriculum requirement our 2nd year M.Sc (N) student Ms.Anitha.V.A has selected the following title for her research study.

"A study to assess the effectiveness of video assisted teaching programme upon menstrual hygiene on awareness and compliance among intellectually challenged adolescents"

So I kindly request your good selves to permit her to conduct study in your esteemed school.

Thanking you,


Dr. LATHA VENKATESAN
PRINCIPAL

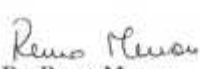

*Can be permitted to
conduct 4 focus session
2 hrs in the morning and
2 hrs in the evening.
Both Training school students
and PV senior girls with
attended by Maheshwari
organiser. Anand Raj*

IS/ISO 9001:2000

Vanagaram to Ambattur Main Road, Ayanambakkam, Chennai - 600 095.
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30/8/16

APPENDIX II
ETHICAL COMMITTEE LETTER

| | |
|---|--|
| <p>Institutional Ethics Committee - Clinical Studies</p> <p>Reg.No.: ECR/37/Inst/TN/2013</p> <p>The Institutional Ethics Committee-Clinical Studies reviewed the proposal, its methodology and design of the study. The proposed thesis work is approved in the presented form without any modifications.</p> <p>The Institutional Ethics Committee-Clinical Studies review and approval of the report is only to meet their academic requirement and will not amount to any approval of the conclusion / recommendations as conclusive, deserving adoption and implementations, in any form, in any health care institution.</p> <p>The Institutional Ethics Committee-Clinical Studies is constituted and works as per ICH-GCP, ICMR and revised Schedule Y guidelines.</p> <p>Regards,</p> <p> Dr. Rema Menon, Member Secretary, Institutional Ethics Committee-Clinical Studies, Apollo Hospitals, Chennai.</p> |  <p>Date: 25/11/2016</p> <p>MEMBER SECRETARY INSTITUTIONAL ETHICS COMMITTEE CLINICAL STUDIES APOLLO HOSPITALS, AHCL CHENNAI, TAMILNADU.</p> |
|---|--|

Apollo Hospitals Enterprise Limited,
21, Greaves Lane, Off Greaves Road, Chennai - 600 006, Tamil Nadu, India. Tel : +91-44-2829 5045 / 6641 Fax : +91-44-2829 4449
E-mail : ecapollochennai@gmail.com

Institutional Ethics Committee - Clinical Studies

Reg.No.: ECR/37/Inst/TN/2013



25 Nov 2016

To,
Ms. V.A. Anitha,
First year, M.Sc. (Nursing),
Department of Psychiatric Health Nursing,
Apollo College of Nursing, Chennai.

Ref: An Experimental Study to Assess the Effectiveness of video assisted teaching upon awareness and compliance of menstrual hygiene among intellectually disabled adolescents in special school at Chennai.

Sub: Approval of the above referenced project and its related documents.

Dear Ms. Anitha,

The Institutional Ethics Committee-Clinical Studies has received the following document submitted by you related to the conduct of the above-referenced study -

- Project Proposal

The Institutional Ethics Committee-Clinical Studies reviewed and discussed the project proposal documents submitted by you at a meeting held on 22 November 2016.

The following Institutional Ethics Committee – Clinical Studies members were present at the meeting held on 22nd Nov 2016 at 3.30 PM at, Apollo Research & Innovations, Conference Hall, Room No: 19, 2nd Floor, Krishnadeep Chambers, (Apollo Hospitals, Annex No: 1), Wallace Garden, Chennai – 600006

| S. No | Name | Gender | Designation | Affiliation | Position in the committee |
|-------|----------------------------|--------|---------------------------------|---|---------------------------|
| 1 | Dr. Rema Menon | F | Blood Bank Transfusion Services | Apollo Hospitals, Chennai | Member Secretary |
| 2 | Dr. Pradeep Kumar | M | Pharmacologist | Apollo Hospitals, Chennai | Pharmacologist |
| 3 | Ms. Maimoona Badsha | F | Lawyer | Independent legal Practitioner, Chennai | Lawyer |
| 4 | Mrs. Malathy Chandrasekhar | F | Home based teacher | Freelance | Layperson |
| 5 | Dr. K. Sathyamurthi | M | Asst. Professor | Madras School of Social work, Chennai | Social Scientist |

Apollo Hospitals Enterprise Limited,

21, Greams Lane, Off Greams Road, Chennai - 600 006, Tamil Nadu, India. Tel : +91-44-2829 5045 / 6641 Fax : +91-44-2829 4449

E-mail : ecapollochennai@gmail.com

APPENDIX III

CERTIFICATE FOR CONTENT VALIDITY

This is to certify that tools and content for the research study developed by Anitha V.A,II year M.Sc (Nursing) student of Apollo college of nursing for her dissertation “A experimental study to assess the effectiveness of video assisted teaching upon awareness and compliance of menstrual hygiene among Intellectually Disabled Adolescents in selected in special schools at Chennai ‘was validated.

Signature of the Expert

Name and Designation

APPENDIX IV

LIST OF EXPERTS FOR CONTENT VALIDITY

1. Dr. Latha Venkatesan,

M.Sc (N).,M.Phil (N).,Ph.D (N).,

Ph. D (HDRFs)., M.B.A.,

Principal cum Professor,

Apollo College of Nursing

Chennai – 600095.

2. Dr. Lizy Sonia. A, M.Sc (N) Ph.D (N)

Vice Principal and Professor in Medical Surgical Nursing,

Apollo College of Nursing

Chennai-600095.

3. Dr. Vijayalakshmi .k

M.Sc., (N), M.A (Psy),M.B.A,Ph.D (N)

H.O.D, Mental Health Nursing

Apollo College of Nursing

Chennai – 600095.

4. Dr. M. Peter Fernandez

MD, DPM,FIPS

Director Dr. Fernandez

Home of schizophrenia

5. Mrs. Anuradha C. M.Sc.(N).(Psy)

Associate professor,
Department of Mental Health Nursing
Apollo college of Nursing
Chennai – 600095.

6. Mrs. Stella Mary . I, M.Sc (N).

Reader Department of Mental Health Nursing
Apollo college of Nursing
Chennai – 600095.

7. Mrs. Priya. M.Sc(N)

Lecturer
Department of Mental Health Nursing
Apollo college of Nursing
Chennai – 600095.

APPENDIX V

RESEARCH PARTICIPANT CONSENT FORM

Dear participant,

I am a M. Sc (N) student Apollo College of nursing, Chennai. As a part of my study, a research on **“A Study to Assess the Effectiveness of the video assisted teaching upon awareness and compliance of menstrual hygiene among Intellectually Disabled Adolescents”** is selected to be conducted. The findings of the study will be helpful for Intellectually disabled girls to maintain healthy life.

I hereby seek your consent and cooperation to participate in the study. Please be frank and honest in your responses. The information collected will be kept confidential and anonymity will be obtained.

Signature of the investigator

I..... hereby consent to
participate in the study.

Place

Date:

Signature of the participant

APPENDIX VI
CERTIFICATE FOR ENGLISH EDITING

CERTIFICATE FOR ENGLISH EDITING

TO WHOMS OVER IT MAY CONCERN

This is to certify that the dissertation entitled "A Pre Experimental Study To Assess The Effectiveness of Video Assisted Teaching Upon Awareness And Compliance Of Menstrual Hygiene Among Intellectually Disabled Adolescents In Special Schools, Chennai" by Anitha. V. A., II yr M. Sc Nursing student of Apollo College of Nursing, was edited for English language appropriateness.

Prof. J.L. NARASIMHAN
New No.8, Second Main Road,
Block B - F1, Krishna Nagar,
Chromepet, Chennai-600 044.
Cell : 94446 54720
e-mail : profjln@yahoo.com


Signature

APPENDIX VII
CERTIFICATE FOR TAMIL EDITING

CERTIFICATE FOR TAMIL EDITING

TO WHOM SO EVER IT MAY CONCERN

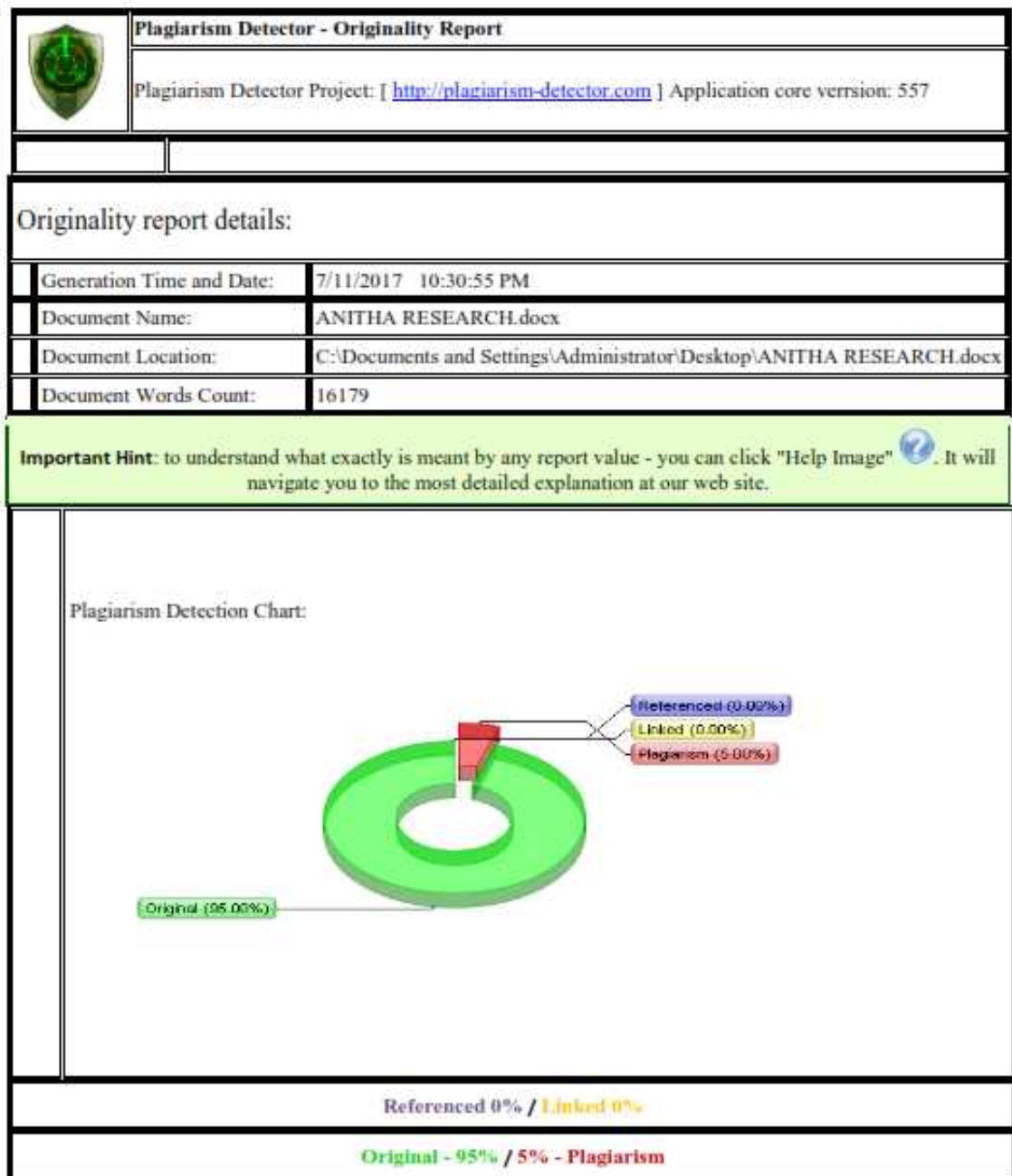
This is to certify that the dissertation "A Pre Experimental Study To Assess The Effectiveness of Video Assisted Teaching Upon Awareness And Compliance Of Menstrual Hygiene Among Intellectually Disabled Adolescents In Special Schools, Chennai" by Anitha. V. A., Ilyr M. Sc Nursing student of Apollo College of Nursing, was edited for Tamil language appropriateness.

செ. விஜயலக்ஷ்மி மா.பேத.
Signature 
12/7



APPENDIX VIII

PLAGARISM ORIGINALITY REPORT



APPENDIX XI

DEMOGRAPHIC VARIABLES PROFORMA FOR INTELLECTUALLY DISABLED

Purpose

This proforma is used to measure the demographic variable such as age, education, type of family, educational status of mother, occupation of mother, monthly family income, previous knowledge regarding menstrual hygiene, sources of information.

Instructions

Kindly read the following questions. Put a tick mark against the answer or fill in the blanks at the space provided. Please describe your responses. Freely and frankly. The details will be kept confidential and used for research purposes only.

1. Age in years

- | | |
|-----------|--------------------------|
| a. 10-11 | <input type="checkbox"/> |
| b. 12 -13 | <input type="checkbox"/> |
| c. 14-15 | <input type="checkbox"/> |
| d. 16-17 | <input type="checkbox"/> |
| e. 18-19 | <input type="checkbox"/> |

2. Education

- | | |
|--------------|--------------------------|
| a. Trainable | <input type="checkbox"/> |
| b. Educable | <input type="checkbox"/> |

3. Type of family

- | | |
|------------|--------------------------|
| a. Nuclear | <input type="checkbox"/> |
|------------|--------------------------|

| | |
|--|----------------------|
| b. Joint | <input type="text"/> |
| c. Other | <input type="text"/> |
| 4. Educational Status of mother | |
| a. Illiterate | <input type="text"/> |
| b. Primary School Certified | <input type="text"/> |
| c. Middle School Certified | <input type="text"/> |
| d. High School Certified and above | <input type="text"/> |
| 5. Occupation of mother | |
| a. Home maker | <input type="text"/> |
| b. Employed | <input type="text"/> |
| 6. Monthly family income | |
| a. Upto 5000 | <input type="text"/> |
| b. 5001-10,000 | <input type="text"/> |
| c. 10,001-20,000 | <input type="text"/> |
| d. Not known | <input type="text"/> |
| 7. Previous knowledge regarding menstrual hygiene | |
| a. Yes | <input type="text"/> |
| b. No | <input type="text"/> |
| 8. If yes, sources of information | |
| a. Mother | <input type="text"/> |
| b. Sister | <input type="text"/> |
| c. Relative | <input type="text"/> |
| d. Friends | <input type="text"/> |
| e. Teacher | <input type="text"/> |

APPENDIX X

**MENSTRUAL HISTORY PROFORMA FOR INTELLECTUALLY
DISABLED**

Purpose

This proforma is used to assess the menstrual history proforma such as age at menarche, duration of menarche, history of menarche, other menstrual problems.

Instructions

Kindly read the following questions put a tick mark against the answer or fill in the blanks at the space provided. Please describe your responses freely and frankly. The detail will be kept confidential and used for research purposes only.

1. Age at menarche

2. How frequently you get the menstrual cycle

a. Once in 25-30 days

b. Once in 31-60 days

c. Once in 61- 90 days

3. Do you have any history of dysmenorrhea

a. Yes

b. No

If yes – mild, moderate, severe

4. Do you have any other menstrual problems

a. yes

☐

b. no

☐

if yes – specify ()

**Blue Print for Structured Questionnaire to assess the Awareness Regarding
Menstrual Hygiene among Intellectually Disabled Adolescents**

| SNO | Components | No of items | Percentage (%) |
|------------|-------------------|--------------------|-----------------------|
| 1 | Menstruation | 6 | 46 |
| 2 | Menstrual hygiene | 7 | 54 |
| | Total | 13 | 100 |

APPENDIX XI

Questionnaire to assess the awareness regarding menstrual hygiene among intellectually disabled adolescents

Purpose

This index has 13 questions. The 13 answers will be added up to get a total score. This is used to assess the awareness regarding menstrual hygiene.

Instructions

For each question, please circle the number that best describes your answer. Each correct answer will be given score of 1 and wrong answer 0. Maximum score is 13.

Menstruation

1. What do you mean by menarche

- a. First menstrual cycle
- b. Delayed menstrual cycle
- c. Painful menstruation
- d. None of the above

2. what is the normal duration of menstrual cycle

- a. 28-30 days
- b. 31-40 days
- c. 41-50days
- d. 51-60 days

3. Usually menarche occurs at the age of

- a. 10-15 yrs
- b. 16-20 yrs
- c. 20-25 yrs
- d. None of the above

4. The normal duration menstrual bleeding

- a. Upto 7 days
- b. 8- 10 days
- c. 11- 13 days
- d. Above 14 days

5. Average blood loss during the menstruation

- a. Upto 50 ml
- b. 51- 100 ml
- c. 101- 150 ml
- d. Above 150 ml

6. Pain in abdomen during menstruation is due to

- a. Presence of uterine contraction
- b. Constipation
- c. Infection
- d. None of the above

Menstrual hygiene

7. Maintaining menstrual hygiene is essential to

- a. Prevent infection
- b. To improve well being
- c. Prevent discomfort

- d. All of the above

8. What type of undergarments should be used

- a. Cotton
- b. Woolen
- c. Synthetic
- d. anything

9. Undergarments should be changed

- a. At least 1-2 times a day
- b. Alternative days
- c. Once in 3 days
- d. Don't know

10. Best absorbent used during menstruation is

- a. Sanitary pads
- b. Old clean clothes
- c. New clothes
- d. Cotton

11. Use of single pad for a long duration leads to

- a. Infection and foul smell
- b. Abdominal pain
- c. Irregular bleeding
- d. None of the above.

12. How do you wash your genital area after toileting?

- a. Using Soap, and water
- b. Using Plain cold water
- c. Using With plain warm water

- d. Using None of the above

Diet

13. What type of diet should be avoided during menstruation?

- a. High salty and spicy diet
- b. Calcium rich diet
- c. Iron rich diet
- d. None of the above

Scoring interpretation

Structured questionnaire consists of 13 questions. Each correct answer will be given score of 1 and wrong answer 0. Maximum score is 13.

| Score | Percentage | Level of awareness |
|----------------------|-------------------|---------------------------|
| Above (10 and above) | 75 | Good |
| 7-9 | 51 | Average |
| Below 7 | Below 7 | Poor |

**Blue Print for Checklist to Assess the Menstrual Hygiene Compliance Among
Intellectually Disabled Girls**

| S.NO | Items No | Number of questions | Percentage (%) |
|-------------|------------------------------------|--------------------------------|-----------------------|
| 1 | General practice | 15 | 75 % |
| 2 | Sanitary pads used as absorbent | 5 | 25% |
| | Total=2 | Total =20 | Total =100% |

APPENDIX XII

Check list to assess the menstrual hygiene compliance among intellectually disabled adolescents

Instructions: The statement will, assess your practice towards menstrual hygiene investigator requests you to kindly provide your practice as YES OR NO each item

| S.NO | Practices | yes | No |
|------|---|-----|----|
| | General practices during menstruation | | |
| 1 | Daily bath | | |
| 2 | Perineal area is kept clean and dry | | |
| 3 | Perineal area is washed with soap and water | | |
| 4 | Perineal area is cleaned from front to back | | |
| 5 | Pubic hair trimmed or saved | | |
| 6 | Cotton undergarments are used | | |
| 7 | Undergarments are washed with soap, Dettol, and water | | |
| 8 | Undergarments are changed at least twice a day | | |
| 9 | Adequate fluid is taken | | |
| 10 | Hot beverages are avoided | | |
| 11 | Fruits and vegetables are taken | | |
| 12 | Salty and spicy foods are avoided | | |
| 13 | Perform day to day activities | | |

| | | | |
|----|--|--|--|
| 14 | Mild exercises are performed | | |
| 15 | Visit doctor for any irregularities | | |
| | Practices regarding use of Sanitary pads | | |
| 16 | Sanitary pads are used much as absorbent | | |
| 17 | Sanitary pads are changed at least twice in a day. | | |
| 18 | Sanitary pads are properly wrapped before disposal | | |
| 19 | Sanitary pads are disposed in separate bins | | |
| 20 | Sanitary pads are removed from front to back | | |

Scoring Interpretation

Checklist consists of 20 Compliance items. Each YES response is scored as 1 and NO response is scored 0. Maximum score is 20.

| Compliance | Score And Percentage |
|------------|----------------------|
| Good | 16-20 (25%0 |
| Average | 10-15(30%) |
| Poor | Below 10 (0-9) (45%) |

APPENDIX XIII

Rating Scale for Assessing Level of Satisfaction on Video Assisted Teaching

Purpose

This rating scale is designed to assess the level of satisfaction of the participants. This is developed by the investigator to assess the satisfaction of the video assisted teaching upon awareness and compliance of menstrual hygiene . This is a 4 point rating scale ranging from 4-1 (highly satisfied, satisfied, dissatisfied and highly dissatisfied).

Instruction

There are 10 items below. Kindly read the items. Response extends from highly satisfied, satisfied, dissatisfied and highly dissatisfied. Put a tick mark against your answers. Describe your responses freely and frankly. The responses will be kept confidential and used for research purpose only.

HS- Highly satisfied, S – Satisfied, DS- Dissatisfied, HD- Highly Dissatisfied

| S.NO | ITEMS | HS | S | DS | HD |
|-------------|--|-----------|----------|-----------|-----------|
| 1 | Explanation regarding video assisted teaching. | | | | |
| 2 | Approach of the researcher | | | | |
| 3 | Time spend by the researcher | | | | |
| 4 | Duration of the programme | | | | |
| 5 | Arrangements made during the programme | | | | |
| 6 | The programme was easy to understand | | | | |
| 7 | Use of teaching | | | | |
| 8 | Involvement of the participant | | | | |
| 9 | Given at the appropriate time | | | | |
| 10 | Usefulness | | | | |

Scoring interpretation

| Score | Percentage | Level of Satisfaction |
|--------------|-------------------|------------------------------|
| 1-10 | Below 25 | Highly dissatisfied |
| 11-20 | 25-50 | dissatisfied |
| 21-30 | 51-75 | Satisfied |
| 31-40 | 76-100 | Highly satisfied |

மக்கள் தொகைமாறிகள் கணக்கீடு

நோக்கம்

இந்த கணக்கீடு பயன்படுத்தி மக்கள் தொகைமாறிகளாகிய, வயது, கல்வித்திறன், குடும்பவகை, தாயாரின் கல்வித்திறன், அவர்களது தொழில், மாத வருமானம், மாதவிடாய் சுகாதாரத்தைக் குறித்த முந்தியதகவல்கள் அறிந்து கொள்ள முடிகிறது.

விதிமுறைகள்

பின்வரும் வினாக்களை படித்து, வெற்றிடங்களில் சரியான பதிலை நிரப்புக. சுதந்திரமாகவும், தன்னார்வத்துடனும் இந்த பதிலை விவரிக்கவும். இந்த தகவல்களை இரகசியமாக பாதுகாக்கப்படும். இதன் நோக்கம் ஆராய்ச்சிக்காக மட்டும் பயன்படுத்தப்படும்.

1. வயது

- a) 10 – 11 வயது
- b) 12 – 13 வயது
- c) 14 – 15 வயது
- d) 16 – 17 வயது
- e) 18 – 19 வயது

2. கல்வி

- a) பயிற்சிமட்டும் பெறமுடிதல்
- b) கல்விகற்கமுடிதல்

3. குடும்பத்தின் வகை

- a) தனிக்குடும்பம்
- b) கூட்டுக்குடும்பம்

4. தாயின் கல்வி அறிவு

- a) படிக்கவில்லை
- b) முதல் நிலைவகுப்பு
- c) நடுநிலைவகுப்பு
- d) உயர்நிலைவகுப்புமற்றும் அதற்கும் மேல்

5. தாயின் வேலை தொழில்

- a) வீட்டில் இருப்பது
- b) வேலைசெய்பவர்

6. குடும்ப மாத வருமானம்

- a) ≤ 5000
- b) 5001 – 10000
- c) 10001 – 20000
- d) தெரியவில்லை

7. மாதவிடாயின் போது இருக்க வேண்டிய சுத்தத்தை குறிக்க

விழிப்புணர்வு இருக்கிறதா?

- a) ஆம்
- b) இல்லை

8. தெரியுமானால்இ யாரிடம் இருந்துகற்றுக் கொண்டீர்கள்?

- a) தாய்
- b) சகோதரி
- c) உறவினர்
- d) நண்பர்கள்
- e) ஆசிரியர்கள்

மாதவிடாய் பற்றிதகவல் குறிப்பேடு

நோக்கம்

இந்த கணக்கீட்டை பயன்படுத்தி மாதவிடாய் வரலாற்று பற்றிய தகவல்களாகிய, பருவமடையும் வயது, மாதவிடாய் நீடிக்கும் காலம், மாதவிடாய் வரலாறு மற்றும் மாதவிடாய் சம்மந்தப்பட்ட கோளாறுகளை சேகரிக்கிறது.

விதிமுறைகள்

பின்வரும் வினாக்களை படித்து, வெற்றிடங்களில் சரியான பதிலை நிரப்புக. சுதந்திரமாகவும், தன்னார்வத்துடனும் இந்த பதிலை விவரிக்கவும். இந்த தகவல்களை இரகசியமாக பாதுகாக்கப்படும். இதன் நோக்கம் ஆராய்ச்சிக்காக மட்டும் பயன்படுத்தப்படும்.

1. பூப்பெய்தின் வயது
2. மாதத்திற்கு எத்தனை முறை மாதவிடாய் சூழற்சி ஏற்படும்?
 - a) 25 – 30 நாட்களுக்குள் ஒரு முறை
 - b) 31 – 60 நாட்களுக்குள் ஒரு முறை
 - c) 61 – 70 நாட்களுக்குள் ஒரு முறை
3. மாதவிடாயின் போது வலி அதிகமாக இருக்கிறதா?
 - a) ஆம்
 - b) இல்லை

4. உங்களுக்குமற்றமாதவிடாயபிரச்சனைஏதேனும் உள்ளதா?
- a) ஆம்
 - b) இல்லை
 - c) ஆம்என்றால் குறிப்பிடவும்

நோக்கம்

பின்வரும் அட்டவணையில் 13 வினாக்கள் உள்ளன. 13 வினாக்களுக்கு மொத்தவினாக்கள் அளிக்கப்படும் இதைப் பயன்படுத்தி மாதவிடாய் சுகாதாரத்தைக் குறித்து மதிப்பீடுகிறது.

1. பூப்பெய்துதல் என்றால் என்ன?
 - a) முதல் மாதவிடாய் சுழற்சி
 - b) தாமதமானமாதவிடாய் சுழற்சி
 - c) வலியோடு கூடியமாதவிடாய்
 - d) எதுவுமில்லை
2. சரியான மாதவிடாய் சுழற்சி எனப்படுவது?
 - a) 28 – 30 நாட்களுக்குஒருமுறைவருவது
 - b) 31 – 40 நாட்களுக்குஒருமுறைவருவது
 - c) 41 – 50 நாட்களுக்குஒருமுறைவருவது
 - d) 51 – 60 நாட்களுக்குஒருமுறைவருவது
3. பொதுவாக பூப்பெய்தல் எந்த வயதிற்குள் ஏற்படும்?
 - a) 10 – 15 வயது
 - b) 16 – 20 வயது
 - c) 20 – 25 வயது
 - d) இதில் எதுவும் இல்லை
4. சரியான மாதவிடாய் நாட்கள்
 - a) 7 நாட்கள் வரை
 - b) 16 – 20 நாட்கள் வரை

- c) 20 – 25 நாட்கள் வரை
- d) இதில் எதுவும் இல்லை
5. பொதுவாக மாதவிடாயின் போது வெளியேறும் இரத்தத்தின் அளவு?
- a) ≤ 50 அட
- b) 50 – 100 அட
- c) 101 – 150 அட
- d) ≥ 150 அட
6. மாதவிடாயின் போதுவரும் வயிற்று வலியின் காரணம்?
- a) கருபைசுறுக்கம்
- b) மலச்சிக்கல்
- c) தொற்றுநோய்
- d) மேலும் குறிப்பிட்ட எதுவும்மில்லை
7. மாதவிடாயின் போதுசுத்தமாக இருப்பதற்கான காரணம்?
- a) தொற்றுநோயைதடுப்பதற்கு
- b) சுகமாகஉணர்வதற்கு
- c) அசௌகரியங்களைதடுப்பதற்கு
- d) மேல் குறிப்பிட்ட எல்லாம்
8. எப்படிப்பட்ட உள்ளாடைகளை பயன்படுத்தவேண்டும்?
- a) காட்டன்
- b) உள்ளன்
- c) சின்தடிக்
- d) எதுவும்மில்லை

9. உள்ளாடைகளை எத்தனை முறை மாற்றவேண்டும்?
- a) குறைந்தது 1 – 2 முறை
 - b) ஒருநாள் விட்டுஒருநாள்
 - c) மூன்று நாட்களுக்கு ஒருமுறை
 - d) தெரியாது
10. மாதவிடாயின் போது பயன்படுத்த உதந்தது?
- a) சானிடரிபேடு
 - b) பழையசுத்தமானதுணி
 - c) காட்டன்
11. மாதவிடாயின் போது பேடு ரொம்பநேரம் பயன்படுத்துவதால் வரும் பிரச்சனை
- a) தொற்றுநோய் மற்றும் துநாற்றம்
 - b) வயிற்றுவலி
 - c) ஒழுங்கற்றமாதவிடாய்
 - d) இதில் ஏதும் இல்லை
12. கழிவறைக்குசென்றப்பிறகுஎப்படிபிறப்புஉறுப்புக்களைசுத்தம் செய்வார்கள்.
- a) சோப்பு மற்றும் தண்ணீர் உபயோகிப்பது
 - b) குளிர்ந்ததண்ணீர்
 - c) முதிமான சூடானதண்ணீர்
 - d) எதுவுமில்லை

13. மாதவிடாயின் போதுதவிர்க்கவேண்டியஉணவுகள்

- a) அதிகம் உப்புஇ காரம் எண்ணெய் வகைஉணவு
- b) கால்சியம் அதிகமானஉணவு
- c) அயன்
- d) எதுவுமில்லை

மதிப்பெண் விளக்கம்

| மதிப்பெண் | விழிப்புணர்வு குறித்ததான நிலைமை | சதவீதம் |
|-----------------|------------------------------------|-----------------|
| அதிகபட்சம் 10 | நல்ல மதிப்பெண் | 75 |
| 7-9 | சராசரி | 51 |
| குறைந்தபட்சம் 7 | மோசமான மதிப்பெண் | குறைந்தபட்சம் 7 |

நீலஅச்சு அ செயல்திட்டபட்டியலின் மூலம் மாதவிடாய் சுகாதார இணக்கம் அறிவார்ந்த முறையில் முடக்கப்பட்ட பருவ மங்கைகள் மத்தியில்

மதிப்பீடு செய்யப்படுகிறது.

| வ.எண் | பொருட்கள் | கேள்விகள் | சதவீதம் |
|-------|---------------|-----------|---------|
| 1. | பொதுநடைமுறை | 15 | 75மூ |
| 2. | சுகாதாரதிண்டு | 5 | 25மூ |
| | மொத்தம் | 20 | 100மூ |

| வ.எண் | பழக்கங்கள் | ஆம் | இல்லை |
|-------|---|-----|-------|
| 1 | தினமும் குளிப்பதுண்டா? | | |
| 2 | பிறப்பு உறுப்புக்களை சுத்தமாகவும் உலர்வாகவும் வைப்பதுண்டா? | | |
| 3 | சோப்பு மற்றும் தண்ணீரை பயன்படுத்தி பிறப்பு உறுப்புக்களை தூய்மைப் படுத்துவதுண்டா? | | |
| 4 | முன் பகுதியிலிருந்து பின்பகு திவரை பிறப்பு உறுப்புக்களை தூய்மைப் படுத்துவதுண்டா? | | |
| 5 | பிறப்பு உறுப்பில் இருக்கும் முடியைடிரிம் செய்வது அல்லது நீக்குவதுண்டா? | | |
| 6 | காட்டன் துணியை உபயோகிப்பீர்களா? | | |
| 7 | உள்ளாடையை சோப்பு டெட்டால் மற்றும் தண்ணீரை உபயோகித்து தூய்மைப்படுத்துவீர்களா? | | |
| 8 | உள்ளாடையை இரண்டு தடைவ ஒரு நாளுக்கு மாற்றுவீர்களா? | | |
| 9 | நிறைய போதுமான தண்ணீரை குடிப்பதுண்டா? | | |
| 10 | மிகவும் சூடானபானங்களை தவிர்பீர்களா? | | |
| 11 | பழங்கள் மற்றும் காய்கறிகளை அதிகம் எடுப்பீர்களா? | | |
| 12 | உப்பு மற்றும் காரம் உள்ள உணவுகளை அதிகம் சேர்க்காமல் இருப்பதுண்டா? | | |
| 13 | துினசரி வேலைகளை செய்வீர்களா? | | |
| 14 | லேசான உடற்பயிற்சி செய்வதுண்டா? | | |

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| 15 | ஒழுங்கற்ற மாதவிடாயிர்க்கு மருத்துவரை நாடுவதுண்டா? | | |
| 16 | சேனிடரி நாப்பின்களை பயன்படுத்துவீர்களா? | | |
| 17 | குறைந்தது ஒரு நாளுக்கு இரண்டு முறையாவது சானிடரிபேடை மாற்றுவீர்களா? | | |
| 18 | சேனிடரி பேடினை நன்றாக பேப்பரில் சுற்றி இடிஸ்போஸ் செய்வதுண்டா? | | |
| 19 | சேனிடரி பேடினை தனியான குப்பைத் தொட்டியில் போடுவதுண்டா? | | |
| 20 | சேனிடரி பேடினை முன்பகுதியிலிருந்து பின் பகுதியாக எடுப்பீர்களா? | | |

APPENDIX XIV

VIDEO ASSISTED TEACHING

TOPIC: Video assisted teaching

GROUP: Special school students

PLACE: Moogapair and Kilpak , Chennai.

DURATION: 4 hours

METHOD OF TEACHING : Lecture cum discussion

TEACHING AIDS: Video presentation.

EDUCATOR :M.Sc (N) II year student, Apollo college of Nursing, Chennai.

| Specific objectives | Content | Learning activity |
|--|--|---|
| | <p>INTRODUCTION</p> <p>Menstruation is a physiological phenomenon which is unique to females that beings in adolescence. Menstruation is also called menses or catamenia and commonly a period of monthly flow. With the onset of menstruation a girl becomes aware of her emerging identity as a female capable to reproduce and demands high less of hygienic measures.</p> | <ul style="list-style-type: none"> - Lecture cum discussion - Listening |
| At the end of the section group will be able to define menstruation. | <p>Menstruation is the visible manifestations of cyclic physiologic uterine bleeding due to shedding of endometrium.</p> <p>Menstruation or menses is the regular cycle of bleeding per vagina for 3-5 days monthly and considered as a natural, normal and necessary process in order to develop the reproductive capabilities.</p> | <ul style="list-style-type: none"> - Lecture cum discussion - Listening |
| At the end of the section group will be explain menstrual cycle | <p>MENSTRUAL CYCLE</p> <p>Every month ovaries release an egg. In anticipation of possible</p> | <ul style="list-style-type: none"> - Lecture cum discussion - Listening |

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| | <p>fertilization the uterus prepares itself with a thick lining of blood for the protection, safety and nutrition of the fetus. If fertilization does not take place, the thick lining of blood is not required and disintegrates and starts flushing out of the vaginal opening along with the ovum.</p> <p>Although each women has an individual cycle that varies in length, the average cycle is taken to be 28 days long and recurs from puberty to menopause expect when pregnancy intervenes. The first day of the cycle is the day on which menstruation begins.</p> <p>There are 3 main phases and they affect the tissues structure of the endometrium, controlled by the ovarian hormones.</p> <ol style="list-style-type: none"> 1. Menstrual phase: this phase is characterized by vaginal bleeding, lasts for 3-5 days. This happens when the | |
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| | <p>endometrium is shed down to the basal layer along with blood and unfertilized ovum.</p> <p>2. Proliferative phase: this follows menstruation and lasts until ovulation. This phase is under the control of estrogen and consists of re growth and thickening of endometrium.</p> <p>3. Secretary phase: This phase follows ovulation and is under the influence of progesterone and estrogen. It is a 28 days cycle. First 5 days bleeding occurs, ovulation takes place during 10 to 18 days, which is considered to be fertile period.</p> | |
| At the end of the session group will be explain the various practises to be followed during menstruation. | <p>MENSTRUAL HYGIENE COMPLIANCE</p> <p>Sympathetic and careful handling of the young girls experiencing first menstruation is of paramount importance. This should be done by the mother explain the physiologic and other associated changes during period. The girls should continue with</p> | <p>- Lecture cum discussion</p> <p>-Listening</p> |

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| | <p>their normal activities.</p> <p>Menstrual hygiene includes the compliance s followed by the girl during the cycle such as cleaning the perineal area, shaving pubic hair, use of sanitary pad and their disposal, and their maintenance .</p> <p>personal hygiene to be followed during menstruation are to use sterile pads during early period of heavy flow, bathe daily for comfort and to feel fresh, keep perineal area clean from anterior to posterior, cotton under garments preferred.</p> <p>Menstrual hygiene compliance are a turning point among intellectually disabled adolescent girls. They need assistance in identification, placing menses materials, and disposal of used menstrual materials.</p> | |
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| | <p>Reproductive tract infections, which has become a silent epidemic that devastates women's life is closely interrelated with poor menstrual hygiene. Therefore poor menstrual hygiene and correct perceptions and beliefs can protect the womenfolk from this suffering.</p> <p>Women having better knowledge regarding menstrual hygiene and safe practices are less vulnerable to reproductive tract infections and its consequences.</p> <p>The compliance to be followed are:</p> <p>General compliance during menstruation:</p> <ul style="list-style-type: none"> ➤ Daily bath ➤ Keep the perineal area clean and dry. ➤ Perineal area is washed with soap and water. | |
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| | <ul style="list-style-type: none"> ➤ Perineal area is washed from front to back. ➤ Clean, cotton under garments should be used. ➤ Undergarments should be changed twice a day. ➤ Pubic hair should be either trimmed or shaved as per the convenience. ➤ Balanced diet should be taken ➤ Adequate fluids should be taken to compensate the blood loss. ➤ No restriction of activities. Could perform the day to day activities. ➤ Mild exercises could be performed. ➤ Visit doctor for any irregularities such as heavy bleeding, irregular bleeding, dysmenorrhea. ➤ Use sanitary pads or clothes as per convenience. | |
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| | <p>Those using sanitary napkins as absorbent;</p> <ul style="list-style-type: none"> • A single sanitary pad can accumulate at the maximum of 50ml of blood. • Pads should be changed every 5 hours. • Pads should be disposed in bins, buried or burnt. • Pads should be removed from front too back and not from back to front. • Pads are properly wrapped before disposal. <p>Advantages of sanitary napkins over clothes</p> <ul style="list-style-type: none"> • Easy usage and disposal • Less chance of infection • Mobility and ease of doing day to day activities. <p>Disposal of sanitary napkins</p> | |
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| | | |
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| | <p>Burial or incineration can be used. Napkins should not be thrown into toilets or water clothes. It should be properly wrapped with newspaper and should be either disposed to sanitary bins.</p> <p>It is always better to have a separate bin for sanitary pads.</p> <p>It is important to dispose the napkins properly as it may lead to transmission of infections like hepatitis through insects and other animals if left open. It can also leave foul smell if kept open for a long time.</p> | |
| | <p>Summary</p> <p>So far we have discussed on menstruation, menstrual cycle, menstrual hygiene and compliance and its importance.</p> | |
| | <p>Conclusion</p> <p>The social stigma attached to menstruation causes many girls and women to carryout dangerous hygiene practices. lacking a</p> | |

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| | <p>platform to share menstrual hygiene problems, girls and women often suffer from discomfort and infection, avoiding urination during menstruation and using any kind of cloth available old or unwashed as an absorbent.</p> <p>These kinds of practices leads to problems like infection, boils and itching but still girls are not visiting medical practitioners. Thus increased knowledge from childhood may escalate safe practices and may help in mitigating the suffering.</p> | |
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APPENDIX XV
DATA CODING SHEET
DEMOGRAPHIC VARIABLES

| SNO | AGE | EDUCATION | TYPE OF FAMILY | EDUCATIONAL STATUS OF MOTHER | OCCUPATION | MONTHLY INCOME | PREVIOUS KNOWLEDGE | SOURCE OF INFORMATION |
|------------|------------|------------------|-----------------------|-------------------------------------|-------------------|-----------------------|---------------------------|------------------------------|
| 1 | 1.3 | 2.1 | 3.2 | 4.1 | 5.1 | 6.4 | 7.1 | 8.5 |
| 2 | 1.2 | 2.1 | 3.2 | 4.4 | 5.1 | 6.4 | 7.1 | 8.5 |
| 3 | 1.3 | 2.2 | 3.2 | 4.1 | 5.1 | 6.3 | 7.1 | 8.5 |
| 4 | 1.3 | 2.2 | 3.1 | 4.4 | 5.1 | 6.3 | 7.1 | 8.1 |
| 5 | 1.3 | 2.1 | 3.1 | 4.4 | 5.4 | 6.1 | 7.1 | 8.1 |
| 6 | 1.3 | 2.1 | 3.1 | 4.3 | 5.1 | 6.1 | 7.1 | 8.5 |
| 7 | 1.2 | 2.1 | 3.3 | 4.1 | 5.1 | 6.4 | 7.1 | 8.1 |
| 8 | 1.1 | 2.1 | 3.1 | 4.1 | 5.1 | 6.4 | 7.1 | 8.1 |
| 9 | 1.1 | 2.2 | 3.3 | 4.2 | 5.1 | 6.4 | 7.1 | 8.5 |
| 10 | 1.2 | 2.2 | 3.3 | 4.1 | 5.1 | 6.4 | 7.1 | 8.5 |
| 11 | 1.2 | 2.2 | 3.1 | 4.4 | 5.2 | 6.4 | 7.1 | 8.1 |
| 12 | 1.3 | 2.2 | 3.1 | 4.2 | 5.2 | 6.4 | 7.1 | 8.5 |
| 13 | 1.2 | 2.2 | 3.2 | 4.1 | 5.1 | 6.4 | 7.1 | 8.5 |
| 14 | 1.3 | 2.2 | 3.2 | 4.4 | 5.2 | 6.2 | 7.1 | 8.1 |
| 15 | 1.2 | 2.2 | 3.1 | 4.3 | 5.2 | 6.4 | 7.2 | 8.5 |
| 16 | 1.3 | 2.2 | 3.2 | 4.1 | 5.1 | 6.4 | 7.2 | 8.1 |
| 17 | 1.3 | 2.2 | 3.3 | 4.1 | 5.1 | 6.4 | 7.2 | 8.1 |
| 18 | 1.2 | 2.2 | 3.3 | 4.1 | 5.1 | 6.4 | 7.2 | 8.1 |
| 19 | 1.1 | 2.2 | 3.3 | 4.2 | 5.1 | 6.4 | 7.2 | 8.5 |
| 20 | 1.2 | 2.2 | 3.1 | 4.4 | 5.2 | 6.3 | 7.1 | 8.1 |
| 21 | 1.3 | 2.1 | 3.3 | 4.1 | 5.1 | 6.4 | 7.1 | 8.5 |
| 22 | 1.2 | 2.1 | 3.3 | 4.1 | 5.1 | 6.4 | 7.1 | 8.5 |
| 23 | 1.2 | 2.1 | 3.3 | 4.1 | 5.1 | 6.4 | 7.1 | 8.5 |
| 24 | 1.2 | 2.1 | 3.3 | 4.1 | 5.1 | 6.4 | 7.1 | 8.1 |
| 25 | 1.2 | 2.1 | 3.3 | 4.1 | 5.1 | 6.2 | 7.1 | 8.5 |
| 26 | 1.3 | 2.1 | 3.3 | 4.1 | 5.1 | 6.4 | 7.2 | 8.1 |
| 27 | 1.3 | 2.1 | 3.3 | 4.1 | 5.1 | 6.4 | 7.2 | 8.5 |
| 28 | 1.3 | 2.1 | 3.3 | 4.2 | 5.1 | 6.1 | 7.1 | 8.1 |
| 29 | 1.2 | 2.2 | 3.1 | 4.1 | 5.1 | 6.4 | 7.1 | 8.1 |
| 30 | 1.3 | 2.2 | 3.1 | 4.1 | 5.1 | 6.2 | 7.2 | 8.5 |

APPENDIX XVI
MASTER CODING SHEET

| SNO | PRE TEST AWARENESS | PRE TEST COMPLIANCE | POST TEST AWARENESS | POST TEST COMPLIANCE |
|------------|---------------------------|----------------------------|----------------------------|-----------------------------|
| 1 | 4 | 6 | 4 | 14 |
| 2 | 1 | 7 | 7 | 15 |
| 3 | 4 | 7 | 6 | 14 |
| 4 | 0 | 8 | 10 | 10 |
| 5 | 0 | 9 | 9 | 10 |
| 6 | 2 | 7 | 7 | 9 |
| 7 | 4 | 5 | 4 | 13 |
| 8 | 4 | 8 | 5 | 11 |
| 9 | 3 | 5 | 5 | 12 |
| 10 | 4 | 8 | 6 | 14 |
| 11 | 3 | 7 | 12 | 8 |
| 12 | 5 | 9 | 10 | 13 |
| 13 | 5 | 8 | 11 | 12 |
| 14 | 2 | 5 | 4 | 9 |
| 15 | 5 | 5 | 9 | 13 |
| 16 | 2 | 6 | 8 | 15 |
| 17 | 5 | 5 | 9 | 14 |
| 18 | 4 | 5 | 10 | 11 |
| 19 | 4 | 4 | 10 | 15 |
| 20 | 3 | 6 | 12 | 14 |
| 21 | 6 | 6 | 9 | 12 |
| 22 | 5 | 7 | 11 | 11 |
| 23 | 4 | 6 | 10 | 12 |
| 24 | 4 | 6 | 10 | 11 |
| 25 | 5 | 7 | 9 | 11 |
| 26 | 5 | 8 | 9 | 14 |
| 27 | 0 | 5 | 8 | 12 |
| 28 | 6 | 6 | 8 | 12 |
| 29 | 2 | 5 | 7 | 14 |
| 30 | 6 | 9 | 7 | 12 |

APPENDIX XVII
PHOTOGRAPHS DURING DATA COLLECTION





CHAPTER-I

INTRODUCTION

Background of the study

The word 'adolescent' is derived from Latin word adolescence meaning 'to grow up'. Adolescence is the phase, usually between 10-20 years, in which children undergo rapid changes in body size, physiology and psychological and social functioning. All body dimensions development and maturation are completed during of this period [Macmillan -2015].

Menstruation is a part of the reproductive cycle that starts when girls become sexually mature at the time of puberty. It is a phenomenon unique to females. During the menstrual period, a woman bleeds from her uterus via vagina. The menstrual rhythm depends on the hypothalamus pituitary ovarian function whereas the quality of blood loss depends upon the uterus contraction. The menstrual period lasts from three to seven days and the average menstrual cycle is 28 days. Cycle can range from 21-35 days in adults and from 21-45 days in young teens.

The menarche or onset of menstruation varies with heredity and family, but the average for most girls are from 11-15 years until 45-55 years, on the basis of the geographical condition, racial factors, nutritional standards, environment influences and indulgence in strenuous physical activity can all affect the age of menarche. Puberty is the process of changes by which a child body becomes an adult body capable of reproduction. During puberty, major differences in size,

shape, composition and function develop in many structures and systems rather than the psychosocial and culture aspects of adolescent development. Adolescence is the period of psychological and social transition between childhood and adulthood. Thus, menstrual period is a natural phenomenon that occurs throughout the reproductive years of every woman.

Menstruation disorders may affect the life of adolescents, young women and may sometimes cause problems. The pattern of menstrual cycle was analyzed for association with age of menarche, prevalence of menstrual irregularity, dysmenorrheal, prolonged menstrual bleeding and effect of menstrual disorders, especially dysmenorrheal on social activities and school attendance among adolescent girls. The major causes for the menstruation related problems constitute the menstrual syndrome. Many girls have the to feeling that, their menstruation day has come to anxious, irritated and suffer from severe body pain, and headache and all these result in menstrual problems, stress and emotional tension, weakness assessing from other problems like anemia and hormonal disorder.

The word 'hygiene' derived from the ancient Greek goddess of healthful, 'Hygeia'. The concept of hygiene has come to be associated with standards of personal grooming which often have very little effect on individual health. Menstrual hygiene is a very important risk factor for reproductive tract infection and also a vital aspect of health education for adolescent girls.

Menstrual hygiene deals with a woman's special health care needs and requirements during monthly menstruation or menstrual cycle. These areas of special concern include choice of the best "period production" of feminine hygiene products, how often and when to change her feminine hygiene products, care of her vulva and vaginal as well as the considered benefit of vaginal douching at the end of each menstrual period.

Intellectually disabled is a generalized disorder appearing before adulthood and characterized by impaired cognitive functioning and deficit in adaptive functioning. These children in most cases are unable to look after their own hygiene, and suffer during menstruation, needing help.

The diagnostic terms "intellectually disabled" is getting eliminated in the upcoming international classifications of diseases and disorders and replaced with term intellectually disabled (Harris, 2013).

In rural areas, the incidence of intellectually disabled is 3.1% and in urban, it is 0.9%. According to NIMH, 2% of the general population is intellectually disabled. Three quarters of them are mild disabled and one-fourth are severe disabled (Panda, 1999).

The disabled population in the country has increased by 22.4% between 2001-2011. The number of the disabled which was 2.19 cores in 2001, cores to 2.68 cores in 2011(1.5 core males and 1.18 core females). Rural areas have a large number of the disabled than urban areas.(Siva kumar-2003)

Intellectually disabled relates to a condition where a person has certain limitations in mental functioning in skills such as communicating, taking care of him or herself and social skills. These limitations cause deceleration for a child to learn and develop compared to a normal child. Intellectually disabled children may take longer to learn to speak, walk, and take care of their personal needs such as dressing or eating. They are likely to face trouble keeping-up with the normal educational curriculum in school.

Intellectually disabled is not a disease. It is not contagious. Intellectually disabled situation are also not a type of mental illness, like depression. There is no cure for intellectually disabled. However most intellectually disabled children can learn to participate in a large number of activities. It just takes them more time and extra effort than with other children.

There are many signs of intellectually disabled, intellectually disabled children may:

- Sit, crawl, or walk later than other children
- Learn to talk later in life, or have trouble speaking
- Find it difficult to remember things
- Are unable to understand how to pay for things
- Have trouble understanding social rules
- Face problems comprehending the consequences of their actions
- Face trouble solving problems
- Being unable to think logically

Statistics of Intellectually disabled adolescents of girls and boys

About 87% of people with intellectually disabled will be only a little slower than average learning new information and skills. When they are children, their limitations may not be obvious. They may not even be diagnosed as being intellectually disabled until they go to school. As they become adults, many people with mild disability can live independently. Other people may not even consider them as being intellectually disabled.

The remaining 13% of people with intellectually disabled score below 50% on IQ tests. These persons will have more difficulty in school, at home, and in the community. With need for intensive support for his or her entire life. Every child with intellectual disability is able to learn, develop, and grow. With help, every child with intellectually disabled can lead a satisfying life.

Hence, intellectually disabled adolescents face many challenges in meeting their needs including their hygiene needs, especially menstrual hygiene.

The menstrual cycle is the regular natural change that occurs in the female reproductive system (specially the uterus and ovaries) making pregnancy possible. The cycle is required for the production of ovocytes, and for the preparation of the uterus for pregnancy. Up to 80% of women report having some symptoms during the one to two weeks prior to menstruation [sliverthon-2013].

Common symptoms include acne, tender breasts, bloating, feeling tired, irritability and mood changes. These symptoms interfere with normal life and

therefore qualify as a premenstrual syndrome in 20 to 30% of women. In 3-8%, they are severe [Biggs -2014].

The first period usually begins between twelve and fifteen years of age, a point in time known as menarche. They may occasionally start as early as eight, and this onset may still be normal. The average age of the first period is generally later in the developing world and earlier in the developed world. Typical length of time between the first day of one period and the first day of the next is 21-45 days in young women and 21 -35 days in adults (an average of 28 days) [Sherwood - 2013].

Menstrual cycle is governed by hormonal changes. These changes can be altered by using hormonal birth control to prevent pregnancy. Each cycle can be divided into three phases based on events in the ovary or in the uterus.

Menstruation stops occurring after menopause which usually occurs between 45 and 55 years of age. Bleeding usually lasts around 2 to 7 days. Therefore, nurses play a vital role in helping these girls to improve their awareness and compliance with menstrual hygiene based on their level of understanding and ability.

Need for the study

Gets attaining menarche early in life is becoming a common occurrence . As a result, most of the time girls are inadequately prepared for facing menstruation and taking extra precautions. They may also lack in the knowledge related to menstrual cycle. This problem becomes more complex and pre-dominant for the intellectually disabled adolescent girls, or girls with intellectually disabled.

The onset of menstruation is one of the most important physiological changes occurring among girls during the adolescent years. Menstruation heralds the onset of physiological maturity in girls. It becomes part and parcel of their lives until menopause. Apart from personal importance, this phenomenon has social significance too. In India, menstruation is surrounded by myths and misconceptions with a long list of “do’s” and “don’ts” for women. Hygiene related practices of women during menstruation are of considerable importance, as they may increase vulnerability to reproductive tract infections. Poor menstrual hygiene is one the major reasons for the high prevalence of RTIs in a country on matters like the use of clothes during menstruation, increasing susceptibility to RTIs. Adolescents constitute one-fifths of India’s population and yet their sexual health needs remain largely unaddressed in the national welfare program [Garge, 2012].

Poor menstrual hygiene in developing countries has been an insufficiently acknowledged problem. In June 2010, Government of India proposed a new

scheme in respect of menstrual hygiene by a provision of subsidized sanitary napkins to rural adolescent girls. But there are various other issues like awareness, availability and quality of napkins, regular supply, privacy, and water supply, disposal of napkins, reproductive health education and family support which need simultaneous attention for promotion of menstrual hygiene.

The role of good menstrual hygiene management [MHM] as a trigger for better, stronger development of women and girls: personal, educational and educational and professional. There is also clear evidence to show that ignoring good menstrual hygiene is damaging not just women girls directly but also for schools and other areas of our society [Ejik,shivakami,thakkar,etal,2011].

Devi & Ramaiah, [1994] point out to menstruation as a phenomenon unique to the females. It is clear from the study findings that a majority of the girls had correct awareness of menstruation. Regarding the compliance, only 10 girls used boiled and dried cloth as menstrual absorbents. Though almost all the 64 girls received advice regarding menstrual hygiene from different sources, compliance was unhygienic. This shows sometimes the absence or lack of adequate knowledge on the part these girls and their mothers. Before bringing any change in menstrual practices they should be educated on the facts of menstruation and its physiological implications. The girls should be educated on the significance of menstruation and development of secondary sexual characteristics, selection of a sanitary menstrual absorbent and its proper disposal. This can be achieved through planned educational programs by nurses/health care personnel and teachers of these children. Menstrual hygiene and management is

an issue that is not sufficiently acknowledged and has not received adequate attention especially in this disadvantaged segment of population in developing countries including India. There is also paucity of research in this area.

Once menarche occurs, girls with intellectual disability may have to face physical challenges that may make menstrual hygiene difficult, or they may be unable to deal with menstrual pads. The teen may place the pads in inappropriate places; some cannot physically change their own pads, which may interfere with their ability to be independent. Other girls may have difficulty in communicating about the menstrual cycle. Problems may arise when caregivers at school or at home are unable or unwilling to render help on hygiene.

Many studies have been conducted on menstrual hygiene among normal population But the increasing need of hygiene maintenance for a girl child who is intellectually disabled is always challenge for those who are taking care of them, which is overlooked. Therefore there is need to educate the girls on menstruation, its importance and hygiene maintenance, to enable them to lead a healthy reproductive life in future. Hence the investigator has conducted this study to assess the effectiveness of video assisted teaching upon awareness of and compliance with menstrual hygiene among intellectually disabled adolescents.

Statement of the problem

A pre experimental study to assess the effectiveness of video assisted teaching upon awareness and compliance of menstrual hygiene among intellectually disabled adolescents in special schools at Chennai.

Objectives of the study

1. To assess the awareness of and compliance with menstrual hygiene among intellectually disabled adolescents.
2. To evaluate the effectiveness of video assisted teaching upon awareness of menstrual hygiene among intellectually disabled adolescents.
3. To evaluate the effectiveness of video assisted teaching upon compliance with menstrual hygiene among intellectually disabled adolescents
4. To find out the correlation between awareness scores and compliance scores regarding menstrual hygiene among intellectually disabled adolescents.
5. To assess the level of satisfaction regarding video assisted teaching programme among intellectually disabled adolescents.
6. 6.To find out the association between the level of awareness of menstrual hygiene among intellectually disabled adolescents and selected demographic variables.
7. To find out the association between the level of compliance on menstrual hygiene among intellectually disabled adolescents and selected demographic variables

Operational Definitions

Effectiveness

Refers to a significant improvement in awareness of and compliance with menstrual hygiene in post-test than the pre- test at $p < 0.05$ among intellectually disabled adolescents.

Video assisted teaching

It is a planned instruction designed by the researcher on menstrual hygiene, It includes 4 hours session, 2 hours each day for two consecutive days by lecture cum discussion using the video.

Awareness

Refers to the knowledge in mentally challenged adolescent girls regarding importance of maintaining proper menstrual hygienic practices as measured by a structured questionnaire developed by the investigator.

Compliance

Refers to the practices that are followed during menstruation like the use of pads or clothes and their disposal, daily bath, cleaning perineal area which are as measured by checklist developed by the investigator.

Menstrual hygiene

Menstrual hygiene refers to hygienic practices followed by intellectually disabled adolescents such as the use of pads, clothes, and their disposal, daily bath, cleaning perineal area practiced during menstruation.

Intellectually disabled adolescents

Adolescent girls who are studying in special school with IQ between 50-75 and as diagnosed as intellectually disabled by the clinical psychologist.

Assumptions

The assumptions in this study are:

- Menstrual hygiene is very important to prevent urinary tract infection and other related problems.
- School absenteeism among intellectually disabled adolescents is common during menstruation.
- RTI is often experienced by intellectually disabled adolescents more than normal adolescents.
- RTI is caused by to lack of awareness, unhealthy menstrual hygiene practices and poor sanitary facilities among intellectually disabled adolescent girls.
- Menstrual hygiene affect physiological and psychological well -being of the individuals.

Null Hypothesis

Ho1 – There will be no significant difference in the awareness on menstrual hygiene between before and after video assisted teaching among intellectually disabled adolescents.

Ho2- There will be no significant difference in the compliance on menstrual hygiene between before and after video assisted teaching among intellectually disabled adolescents.

Ho3- There will not be correlation between awareness and compliance scores in pre-test and post –test.

Ho4- There will be no significant association between the selected demographic variables and awareness on menstrual hygiene among intellectually disabled adolescents.

Ho5- There will be no significant association between the selected demographic variables and compliance on menstrual hygiene among intellectually disabled adolescents

Delimitations

The study was conducted in

- The intellectually disabled adolescents of the selected schools.
- The intellectually disabled children who have attained menarche and aged below 19 years.

Conceptual Framework of the Study

(‘Ludwig Von Bertalanffy, General system theory (1986))

Theory is an integrated set of defined concepts, existence statements, and relational statements that present a view of a phenomenon and can be used to describe, explain, predict, and control that phenomenon.

Concept is a term that provides abstract description and named as an object or phenomenon, thus providing it with a separate identity or meaning. Framework is abstract, logical structure of meaning, such as a theory, that guides the development of the study, is tested in the study, and enables the researcher to link the findings to nursing body of knowledge.

A framework is a group of concepts and set of propositions that spell out the relationship between them. Their overall purpose is to make scientific findings meaningful and generalized.

The conceptual framework for a particular study is the abstract, logical structure that enables the researcher to link the findings to the body of nursing knowledge.

Conceptual framework deals with the interrelated concepts that are assembled together in some rational schemes by virtue of relevance to a common theme [Polit and Beck, 2012].

The conceptual framework chosen for this study is based on 'Ludwig Von Bertalanffy, General system theory (1986). General system theory that allows making sense of system characteristics such as wholeness, differentiation, order, and progression.

According to the general system theory, a system is defined as an entity which can maintain some organization in the face of changes from within or without. It is also defined as a set of objects or elements in interaction to achieve a specific goal. The function of any system is to convert or process energy, information or materials into a product or outcome for use within the system, outside the system or both. System consists of input, throughput, output, and feedback.

Education is a transformative process, which also involves these elements. Here, the information is transferred to the recipient, processed and transferred into a better out-come. Theory depicts every aspect of the transformation. Input consists of the energy and raw materials transformed by the system such as information, energy, money, time, individual effort and raw materials of some kind. Throughput is the process used by the system to convert raw materials or energy from the environment into products that can be used by either the system itself or the environment such as thinking, planning, decision making, sorting, sharing information, meeting in group, discussing, melting, shaping, hammering, etc. output is the product or service which results from the system throughput or processing of technical, social, financial, and human input such as programs, documents, decisions, laws, rules, money, assistance, bills etc. Feedback is the

information relating to some aspect of data or energy processing that can be used for evaluating and monitoring the system and guiding at the system and to more effective performance such as report card, accreditation reports etc.

The present study is aimed at the effectiveness of video assisted teaching upon the awareness of and compliance with menstrual hygiene among intellectually disabled adolescent girls. The general system theory forms a strong framework as it express each element of the process of teaching and learning.

Here, input refers to teaching of menstrual hygiene and reflects the raw materials that get transformed with a better outcome. The video assisted teaching is the channel or media through which the teaching is transferred to the recipients (intellectually disabled adolescents). Thus video assisted teaching reflects recipients the element throughput element. The gain in the knowledge of menstrual hygiene by intellectually disabled adolescent girls is the output and the post-test score refers to the feedback as it proves the effectiveness of video assisted teaching. The dotted lines in the framework represent the steps that have not been carried out in the present study as, reinforcement and reassessment. Reinforcement is done to support the education and will be provided for those with expected outcome. Here, reinforcement is given for those with adequate knowledge and following good practices. Reassessment is the re-examining of the level of awareness and compliance. Here, the reassessment is done for those with inadequate awareness and poor compliance.

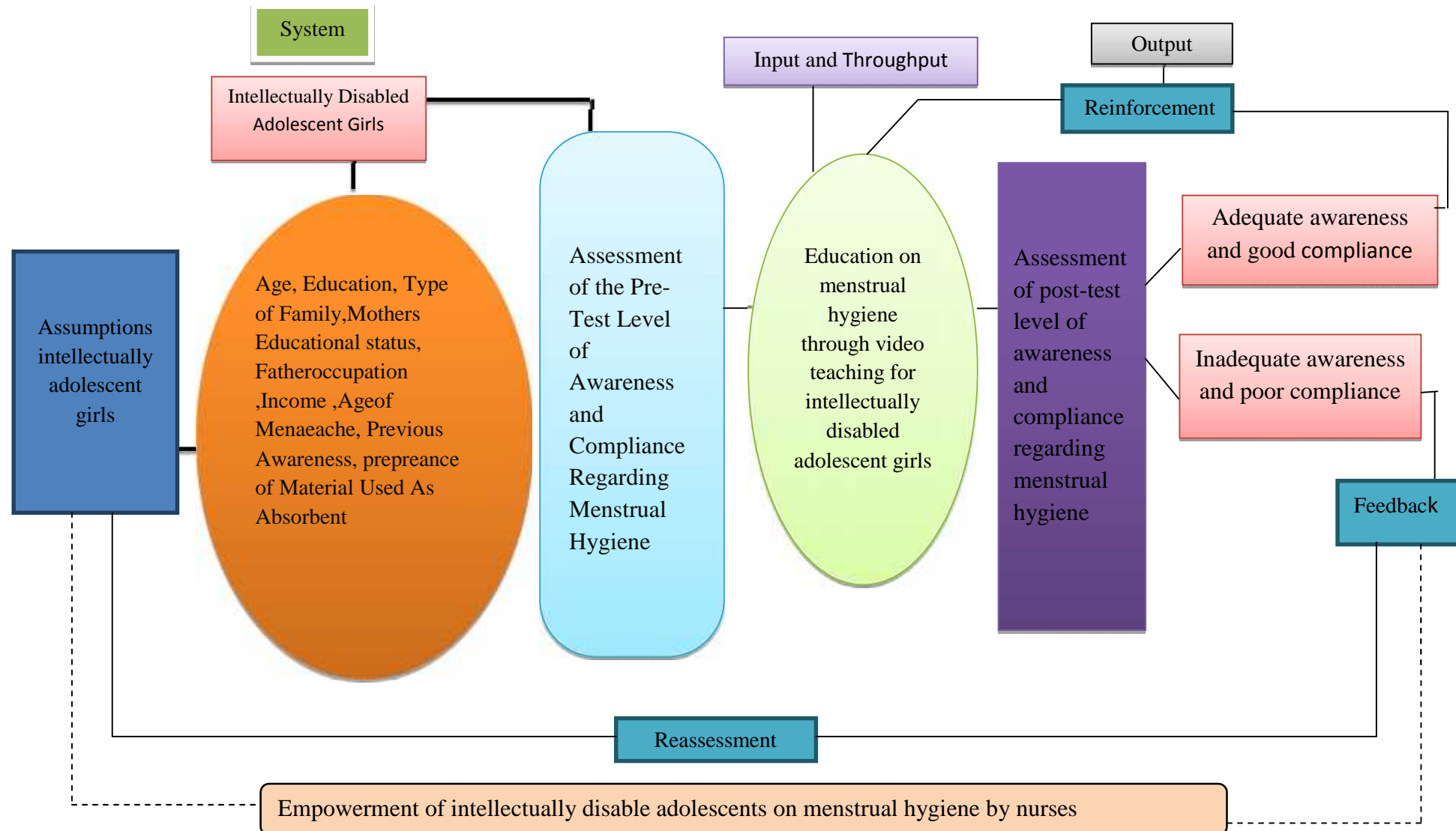


Fig 1: Conceptual Framework Based on Ludwig Von Bertalanffy, General System Theory (1986)

Projected outcome

This study will be useful for improving the awareness of and compliance with menstrual hygiene by providing video assisted teaching among intellectually disabled adolescent girls; It will further help the girls to reduce the RTI and related complications and also to improve wellbeing of the intellectually disabled adolescents.

Summary

This chapter has describes the background, need for the study, and statement of the problem, objectives, operational definitions, assumptions, null hypothesis, delimitations and conceptual frame-work and projected outcome of the study.

Organization of the Report

Further aspects of the study are presented in the following five chapters.

In chapter- II: Review of literature.

In chapter – III : Research methodology – includes research approach, research design, setting, population, sample and sapling techniques, tool description, content validity and reliability of tools, pilot study, data collection procedure and plan for data analysis.

In chapter – IV: Analysis and interpretation of data

In Chapter – V: Discussion

In Chapter – VI: Summary, conclusion, implications and recommendations.

CHAPTER- II

REVIEW OF LITERATURE

Literature review is an organized written presentation of what has been published on a topic by scholars [Burns & Groove, 2004].

The task of literature review involves the identification, selection, critical analysis and reporting of existing information on the topic of interest. This deals with a review of published studies, unpublished research studies, and from related material for the present study. The review helped the researcher in building the foundation of the study.

The review of literature in this chapter has been presented under the following headings:

- Menstrual hygiene – overview
- Menstrual compliance- overview
- Video assisted teaching on menstrual hygiene.

Menstrual hygiene-overview

Dasgupta, Sarkar [2008] have conducted a study to find out the status of the knowledge of menstrual hygiene among adolescent girls in the area of rural health unit and training centers, in Singapore and west Bengal. The mean age of girls was found as 12 years in the range between 11 and 16 years. Regarding knowledge, only out of 160 respondents, only 108 [67.5%] girls were aware of menstruation prior to attainment of menarche. The mother was the first informant

regarding menstruation in case of 60 [37.5%] girls, and 138[86.25%] girls believed it as physiological process. 78 [48.75%] girls knew the use of sanitary pad during menstruation. Regarding practices, only 18 [11.25] girls used sanitary pads during menstruation. 156 [97.5%] girls used both soap and water for cleaning . Regarding restrictions practiced 136[85%], girls practiced different restrictions during menstruation.

Kriparaj (2010) conducted a study to identify the measures in the management of hygiene during menstrual cycle of adolescent girls with retardation related issues faced by the mentally challenged children. The study identified absence of awareness of the importance of personal hygiene in a majority [93.3%] of retarded children 6.7% of children of children could manage personal hygiene independently rest [93.3%] of children were dependent on their mothers to manage their personal hygiene.

Abioye (2000) conducted a study to assess the knowledge relating to menstrual hygiene among 352 adolescents girls in Nigeria. The girls were selected using the random sampling technique and the data was collected from adolescent girls through interviews method. The study revealed deficiency of knowledge about menstruation in 48% of the subjects while 66.3% used sanitary materials as menstrual absorbent.

Adhikare,et.al (2007) conducted a study to assess the knowledge on menstrual hygiene among 150 adolescents' girls of 13-15 years from 3 school shivanagar and patihani village development committees of chitwan district. Data

was collected through a questionnaire and the results revealed they had no proper maintenance of the menstrual hygiene, 94% of them used pads during the period but only 11.35 disposed it of properly . Overall knowledge and practices were 40.6% and 12.3% respectively. The study concluded by insisting that girls should be educated on the process and significance of menstruation, use of proper pads or absorbents and its proper disposal. This can be achieved by giving them proper training and health education. So that there won't be any misconception to adolescent girls regarding menstrual hygiene.

Finkelstein (1990) conducted a study to assess the knowledge on menstrual hygiene among adolescent girls of 699 white, 477 black and Mexican America. The data was collected by using a survey method and the results revealed that 40% had never used tampons, white used tampons alone 26% or with pads 36%. And black used tampons alone 16% or with pads, 27 % compared with Mexican American, 11% used tampons alone and 21% used tampons and pads.

EL-Shazly (2005) conducted on the study to assess the knowledge on menstrual hygiene among 85 of adolescent girls. Data was collected through interviews method and the results revealed one quarter of sample avoiding a bath during their bleeding periods. About two thirds of the adolescent girls stated that they used 3-5 sanitary pads per day, some of adolescents girls significantly used less pads than those at higher grades and those higher grades of adolescents girls carried out their normal daily activities without any difficulty.

Menstrual hygiene compliance- overview

Kensal,et al.(2015) conducted a study on menstrual hygiene practices in physically or mentally handicapped adolescent girls. Out of the total of 650 respondents, 590 [90.78%] had attained menarche at the time of the interview and only one-third of the respondents [29.4%] were aware of menstruation before menarche and sisters [55%] played the key role in providing information to them. Only 31% respondents were using sanitary pads during menstruation. Self-reported reproductive tract infection [RTI] was observed more in respondents not maintaining hygiene practices [66.6%] as compared to those maintaining proper menstrual hygiene [2.6%].

Hasan (2015) conducted a study on menstrual hygiene and sanitation practices among adolescent school going girls as the subject for his study. It was a a south Indian town, in where only 18.6% of adolescent girls had knowledge about menstruation before menarche. As high as 67% of them did not know the cause of menstruation. 23.33% of the girls believed that menstrual bleed comes from the pathway from which urine comes. Nearly all girls [96.67%] reported the use of sanitary pads during of menstruation. Two-thirds [66%] of the girls were secluded during menstruation and a majority 81.3% were told to attend school.

Rutuja (2014) conducted a study on knowledge and practices of menstrual hygiene among adolescent girls in one of the municipal schools of Ahmednagar, The results revealed, the mean age of girls as 13 years ranging between 11 and 16 years. It was evident that only 87(62.14%) girls were aware of menstruation before menarche. A majority of the girls (70.71%) were not aware of the source

of the menstrual bleeding. The study showed (31.42%) of girls using sanitary pads during menstruation, (64.78%) of girls used both. The cleaning of external genitalia was satisfactory in 97% of girls and only 3% of girls showed unsatisfactory results.

Shivaleela (2015) conducted a study on knowledge and practice of menstrual hygiene among high school girls in western Ethiopia, In this study, (60.9%) and (33.9%) respondents had good knowledge and practice of menstrual hygiene respectively. The findings of the study showed a significant positive association between good knowledge and practices seen menstruation. The study revealed a significant positive association with good practice of menstruation hygiene.

Subhash.et.al (2011) conducted a community based, cross sectional study to assess the knowledge and practices of menstrual hygiene among rural and urban areas, among 387 school going adolescent girls in Sooner, Nagpur district. A predesigned, pretested and structured questionnaire was used in the study. The data collection technique was a personal interview of the study subjects. Results showed that only 36.95% of the girls were aware of menstruation before menarche. The major source of information about menstruation for them was found to be their mothers. More than three fourth of the girls in the study were not aware of the cause and the source of the bleeding. A majority of them had knowledge of the use of sanitary pads. 49.35% were using sanitary pads and practice of the use of old clothes was reported in 45.74% of the subjects. Satisfactory cleaning of the external genitalia was practiced by 33.85% of the

girls. Three fourth of the study girls practiced various restrictions during menstruation. Hence the study concluded that menstrual hygiene indices have significant differences in the rural and urban girls and a variety of factors are known to affect menstrual behaviors, the most influential being economic status and residential status. Awareness of the need for information relating to healthy menstrual practices is very important and is essential to design a mechanism to address and for the access of healthy menstrual knowledge.

Shridevi , Padma [2013] conducted a cross sectional study on menstrual hygiene among adolescent girls in urban health centre field practice area of a medical college in West Godavari district, Andhra Pradesh, to know the pattern of menstruation and to the knowledge, practice of menstrual hygiene among adolescent girls. Study was carried among 8th, 9th, 11th standards. Data was collected by a planned, pretested and structured questionnaire and analyzed using Microsoft excel from where percentages and proportions were calculated. Results showed that, 13.07% had blood flow for more than 5 days, 16.8% had blood flow for cycle less than 28 days. 22.93% have excessive bleeding. Knowledge on menstrual before attainment of menarche was 6.13% but after menarche 80.27% of girls knew correctly that vagina is the route of menstruation. Regarding attitude 80.8% of the girls are interested to learn but felt shy. Regarding practices 74.4% were using sanitary pad 99.2% of the girls practice personal hygiene. 68.01% dispose the pad in a satisfactory manner. 71.2% of girls had attained menarche at the age of the 12-14 years. In the study 22.93% are suffering from menorrhagia. Only 18.66% of girls had knowledge of the normal pattern of menstruation 86.67%hesitation in during discussing menstrual problems. Study concluded that

adolescent girls attained knowledge regarding menstruation only after menarche and has negative attitude and feelings towards menstruation.

Khanna [2005] conducted a study on menstrual hygiene in Rajasthan. Results showed that 70% believed that menstruation is not a natural process, most of the girls did not know about the source of menstrual bleeding and more than half of the girls were ignorant of use of sanitary pads during menstruation. 75% of the girls were using cloth piece rather than sanitary pads. The usual practice was to wash cloth that is soap and water it at secret place till next menstrual period. To keep the cloth from others sight, these are sometimes hidden in unhygienic places. Most of them reused the material (73.75%) where as 57.5% properly disposed.

Poureslami [2002] conducted a descriptive, cross sectional study on the attitude of female adolescents on dysmenorrhoea and menstrual hygiene at Tehran in which 250 students were selected randomly using a cluster random sampling method. But only 32% of these practiced personal hygiene, such as taking a bath and used hygienic materials [sterile pads]. About 33% of the subjects, avoided any physical activity or even mild exercise during the menstrual period. Over 67% of the girls reported taking palliative medicine for their menstrual pain without consulting a doctor. The main conclusion derived in this study was the necessity of educating female students on personal hygiene associated with their menstrual period and to adopt a healthy behavior, which includes: appropriate nutrition, exercise and physical activity, personal hygiene, and appropriate use of medications based on a physician's prescription.

Video assisted teaching on menstrual hygiene

Malleshappa.et.al (2011) had an interventional study in Kuppam, Andhra Pradesh to determine the effectiveness of a reproductive health education intervention programme in improving the knowledge of adolescents girls aged between 14-19 years among 656 girls in the age group of 14-19 years. The reproductive health education package developed in consultation with parents, teachers and adolescents was used to educate the girls. A 50 item structured questionnaire was used to test the knowledge of all the participants about the reproductive health before and after the education session. The data was tabulated and analyzed using SPSS version. Results showed reproductive health knowledge score improved significantly after intervention. A significant increase in overall knowledge regarding menstrual cycle , ovulation, fertilization and pregnancy by 44.5% was noted knowledge regarding contraception improved remarkably from 33.7% to 97.4% , significant improvement in the knowledge about transmission and prevention of sexually transmitted diseases was noted after intervention. Hence study concluded that a reproductive health education intervention programme can improve the knowledge among rural adolescent girls regarding reproductive health.

Salini (2016) conducted a study to determine the effectiveness of a planned teaching program on vaginitis and prevention among 80 adolescents of 15-18 years of selected PU colleges in Mangalore. Samples and data were collected by administering a structured knowledge questionnaire before and after the administration of a planned teaching programme. Data was analyzed by using descriptive and inferential statistics [paired' test and chi-square test]. Result

revealed that 70 had moderate knowledge and 10 had inadequate knowledge. The significance of difference between pre-test and post-test was found to be very highly significant. The result depicted that there is no association between knowledge score and selected demographic variables interpretation. Hence it was concluded that the planned teaching programme will be highly effective in improving the knowledge of adolescent girls regarding reproductive infections and its prevention.

Rao,et al (2011) conducted a school based intervention study to determine the effectiveness of educational intervention program on the knowledge relating to reproductive health among 791 rural adolescent girls in Udupi district, Karnataka. Adolescent girls were educated regarding reproductive health and their awareness levels were evaluated immediately following the intervention. Results showed a significant increase in the overall knowledge regarding contraception after the intervention. Knowledge regarding ovulation, first sign of pregnancy and fertilization improved by 37.2%.knowledge regarding the importance of diet during pregnancy improved from 66 to 95% following the intervention. The study clearly showed that an educational intervention program can bring about a desirable change I knowledge among adolescent girls regarding reproductive health.

Dongree., et.al (2007) conducted a study on the effect of community – based health education intervention on management of menstrual hygiene among rural Indian adolescent girls at Wardha District of Maharashtra. Study subjects were unmarried rural adolescent girls (12-19years). Program for appropriate

technology for health guidelines were used to develop a pre-test, handmade flip book containing needs-based key message about the management of menstrual hygiene. The effect of the messages was assessed using a combination of quantitative survey and qualitative trend analysis methods. The showed that adolescent girls were more aware of menstruation before its initiation compared with baseline (35%) and the practice of using readymade pads increased significantly from 5% to 25% and the reuse of cloth declined from 85% to 5%.

Badawai (2005) conducted a study on menstrual hygiene among 664 adolescent school girls of 14-18 years in Mansoura, Egypt. Girls were selected by cluster sampling technique in public secondary schools in urban and rural areas. Data were collected through an anonymous, self-administered, open-ended questionnaire during class time. Study results showed increasing use of sanitary pads in affected girls, but not among girls from rural and poor families and other aspects of personal hygiene were generally found to be poor, such as not changing pads regularly or at night, not bathing during menstruation. Lack of privacy was an important problem. Hence majority of girls are in need of more information regarding menstrual hygiene.

Summary

This chapter dealt provided review of literature related to the stated research problem which the researcher with evidence to understand the stand problem, develop the tool, data collection and analysis of data. Over all 19 review of literature were presented in this chapter, and all the reviews are from primary sources.

CHAPTER-III

RESEARCH METHODOLOGY

The methodology of the research study is defined as the way information is gathered in order to answer the research question and for the analyses of the research problem.

The present study was conducted to assess the effectiveness of video assisted teaching on menstrual hygiene among intellectually disabled adolescents in special school. The research methodology includes research approach, the setting population, sample, sampling technique, selection of tool, and content of validity, reliability, pilot study, data collection procedure and plan for data analysis.

Research Approach

Research approach indicates the basic procedure for conducting research. This choice of the appropriate research depends on the purposes of the study which is undertaken. In this study, the investigator intended to assess the effectiveness of video teaching on awareness and compliance with menstrual hygiene among intellectually disabled adolescents in the special school. An experimental research approach has been adopted in the study.

Research Design

Pre experimental research design [one group pre- test and post -test design] was used in this study

O1 X O2

O1- pre-test on awareness and compliance regarding menstrual hygiene among intellectually disabled adolescents

X- Intervention- It is a planned instruction designed by the researcher on menstrual hygiene, which includes 4 hours session, 2 hours each day for two consecutive days by lecture cum discussion using the video, power points etc.

O2- Post-test on awareness and compliance regarding menstrual hygiene among intellectually disabled adolescent.

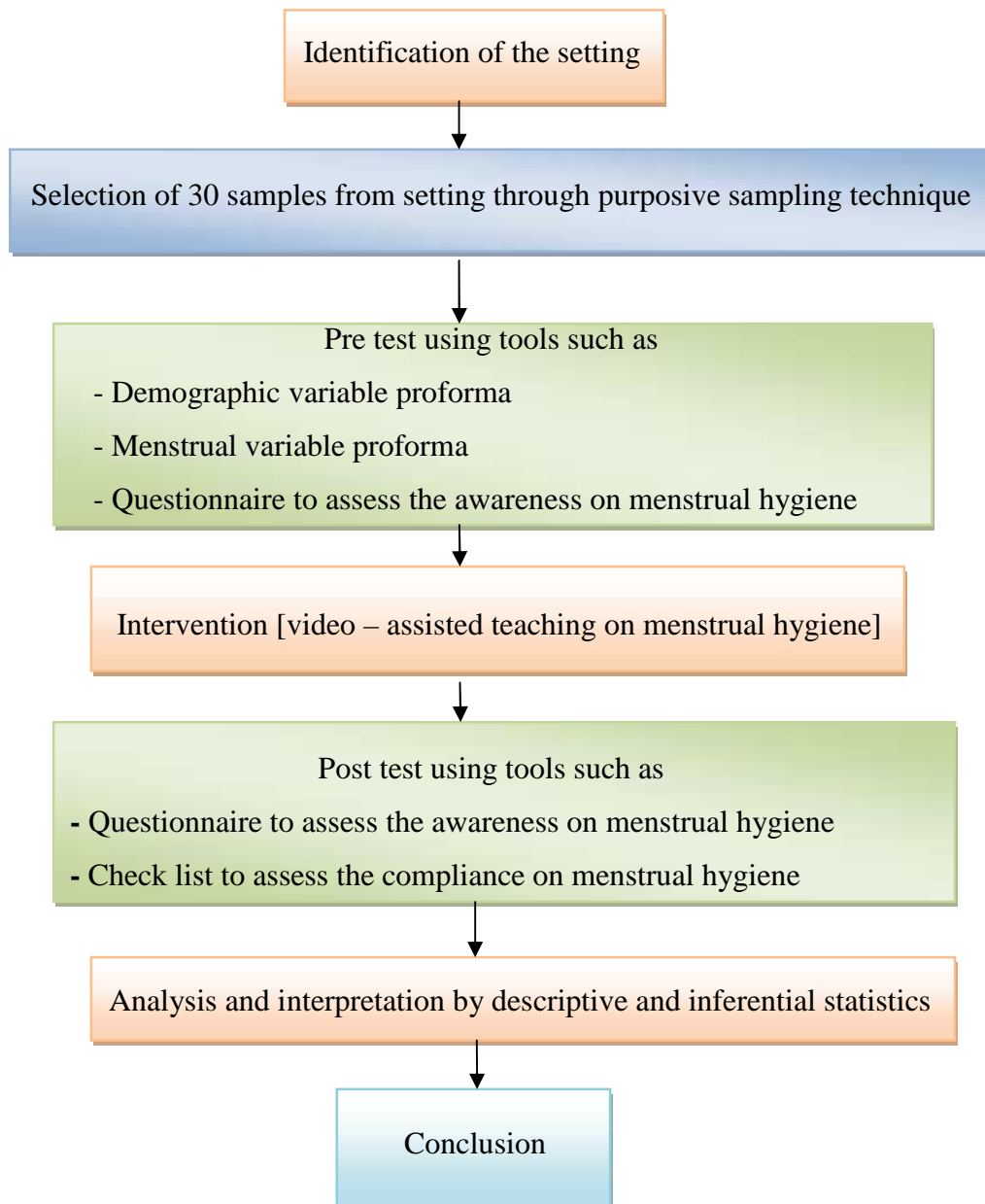


Fig 2: Schematic Representation of Research Design

Variables

An abstract concept when defined in terms that can measure is called a variable. Variables are characteristics that vary among the subjects being studied.

Independent Variable

It is variable hypothesized to obtain the outcome variable of interest. In this study, the independent variable was Video-assisted teaching regarding menstrual hygiene for intellectually disabled adolescents.

Dependent Variables

It is the variable hypothesized to be dependent on or to be caused by another variable. In this study, dependent variable was Level of awareness and compliance regarding menstrual hygiene among intellectually disabled adolescents.

Demographic Variables

Age, Education, Type of family, Educational status of mother Occupation of mother, Monthly family income, Previous knowledge regarding menstrual hygiene, Sources of information.

Research Setting

The study was conducted at a special school [Vasantham – Special school Mogapair, Chennai], Balavihar school for intellectually disabled children in

Kilpauk garden, Chennai. These schools are located 5 klms and 10KMs away from the Apollo college of Nursing, respectively. There are 134 and 1460 students in Vasantham and Balavihar special school respectively.

Population

Population is the entire aggregation of cases which meet the designated set of criteria (Polit and Beck 2012). In this study, the target population comprises of adolescence girls in selected special schools.

Target population

The target population is the group of people that the researcher aims at and for whom the study findings were generalized. In this study, The target population was Intellectually disabled adolescent girls in special schools who satisfy the inclusion criteria.

Accessible population

It is the list of population that the researcher finds in the research area. The access able population in this study was the Intellectually disabled adolescents in selected special schools, Chennai.

Sample

According to Polit and Beck (2012) sample consists of subset of units that comprise the population. In the present study, Intellectually disabled adolescents who meet the inclusion criteria

Sample Size

The sample size for the present study was 30. The decision on the sample size based on the feasibility and availability of the sample.

Sampling Technique

Sampling is the process of selecting a portion of population to represent the entire population (Polit and Beck 2012). Researcher used Purposive sampling technique as there were limited number of (mild intellectually disabled adolescents).

Sampling Criteria

Inclusion Criteria

- Intellectually disabled adolescents who has attained menarche
- Intellectually disabled adolescents aged between 12-19 years with mild mental retardation
- Intellectually disabled adolescents in the selected institutions

Exclusion Criteria

- Intellectually disabled adolescents not willing to participate in the study
- Intellectually disabled adolescents who were not co-operative
- Intellectually disabled adolescents with any visual and hearing impairment

Selection and development of study instruments

The present study was aimed at evaluating the effectiveness of video assisted teaching upon awareness and compliance of menstrual hygiene among intellectually disabled adolescents. So, the data collection tools were developed through an extensive review of literature in consultation with the research experts and faculty. In this study, the following tools were used.

- Demographic variables proforma.
- Menstrual variable Proforma
- Questionnaire to assess the awareness on menstrual hygiene
- Check list to assess the compliance on menstrual hygiene

Demographic variables Proforma

The demographic variables proforma consisted of age, education, educational status of mother, family income, type of family, occupation of mother, previous knowledge regarding menstrual hygiene, source of information.

Menstrual History Performa

Menstrual history proforma consisted of age at menarche, duration of menstrual cycle, history of dysmenorrhoea, other menstrual problems.

Questionnaire to assess the awareness on menstrual hygiene

It was developed by the investigator on the basis of the review of literature and experts, opinion. It consisted of 13 items,(MCQ with 4 options-with 1 right answers and 3 distractors) . Each right response was given score 1 and wrong response was scored 0. Therefore the total obtainable score was 0-13. Obtained score is converted into percentage and interpreted as follows.

Scoring interpretation

| Score | Percentage | Level of awareness |
|----------------------|-------------------|---------------------------|
| Above (10 and above) | 75 | Good |
| 7-9 | 51 | Average |
| Below 7 | Poor | Below 7 |

Check list to assess the compliance on menstrual hygiene

It was also developed by the investigator based on the review of literature and experts, opinion. It consisted of 20 items, with Yes or No options. Score 1 was given for Yes and No responses were scored zero. Therefore the total obtainable score was 0-20.

Scoring interpretation

| Score | Percentage | Compliance |
|----------------|-------------------|-------------------|
| 16-20 | 25 | Good |
| 10-15 | 30 | Average |
| Below 10 (0-9) | 45 | Poor |

Rating Scale for Assessing Level of Satisfaction of Video Assisted Teaching

This was developed by the investigator to assess the satisfaction of the purpose video assisted teaching among intellectually disabled adolescents at special schools. This scale consisted of 10 items and related to satisfaction with the study participants regarding the various aspects of video assisted teaching and rated on 4 point scale with the score. Highly satisfied -4, Satisfied-3, Dissatisfied-2, Highly dissatisfied-1. The total obtained score is 10-40. The obtained score is converted into percentage and interpreted as follows:

Scoring interpretation

| Score | Percentage | Level of Satisfaction |
|--------------|-------------------|------------------------------|
| 1-10 | Below 25 | Highly dissatisfied |
| 11-20 | 25-50 | Dissatisfied |
| 21-30 | 51-75 | Satisfied |
| 31-40 | 76-100 | Highly satisfied |

Validity

Content validity refers to the degree to which the items on an instrument adequately represents the universe of the content (Polit, 2012). Content validity was obtained from 7 experts in the field of Psychiatric Nursing and Psychiatrist. Suggestion given by the experts were incorporated in the study.

Reliability

It is the degree of consistency with which an instrument measures the attributes which is designed to measure (2012). Internal consistency of the Karl Pearson's correlation coefficient -test retest (one week interval) reliability was 0.8, which indicates that the tool is highly reliable.

Pilot Study

A pilot study is a minimum version of actual study in which the instruments are administered to the samples drawn from the same population. It was a small scale version done in preparation for the major study, (Polit and Beck, 2012). The purpose of the Pilot study was to find out the feasibility and practicability of the study design. A pilot study was conducted on 5 students and the conduct of the study was found feasible.

The Pilot study was conducted among 5 samples in the vasantham schools, Moogapair. It was a planned instruction on menstrual hygiene designed by the

researcher, and included 4 hours session, 2 hours each day for two consecutive days by lecture cum discussion using the video. Formal permission was obtained from the authorities for the pilot study. Five subjects were chosen by purposive sampling technique. The students were assisted by the researcher during the sessions. The level of satisfaction on video assisted teaching was assessed later using rating scale for the group.

Protection of Human Rights

- The study was conducted after obtaining the approval of the Ethical Committee, Apollo collage Hospitals, Chennai.
- The study was conducted after obtaining permission from the Principal, Apollo College of Nursing, H.O.D Psychiatric department, the concerned authorities of the special school, Chennai.
- The written consent was obtained from the students and confidentially was maintained throughout the study.

Data Collection Procedure

Data collection is the gathering of information needed for the researcher to address the research problem. Data collection for this study was done by the researcher for a period of 2 weeks. The researcher identified the participants who met the inclusion criteria and selected 30 students for the study through purposive sampling teaching. After initial introduction, the researcher obtained consent from the students. An assurance was given regarding confidentiality before the data collection procedure. Data was collected by using predetermined and

pretested tools such as demographic variable proforma, menstrual history proforma, questionnaire to assess awareness regarding menstrual hygiene, checklist to assess the compliance through interview method.

Video assisted teaching was administered after the post test. The teaching was to all selected students for a duration which includes 4 hours session, 2 hours each day for two consecutive days. Then the level of satisfaction on regarding video assisted teaching was assessed by using the satisfaction rating scale. Post test was conducted after 40 days.

Plan for Data Analysis

Data analysis is the systematic organization, synthesis of research data and testing of null hypothesis by using obtained data (Polit& Beck, 2012).

Analysis and interpretation of data were carried out by using descriptive and inferential statistics. Descriptive statistics such as mean, frequency, and percentage, mean and SD were used to describe the demographic variable & inferential statistics such as t- test will be used.

Chi square test was used to find out the association between selected demographic variables and level of awareness and compliance of menstrual hygiene among pre- test and post- test of group.

Summary

This chapter dealt with research approach, research design, setting, population and sample, sampling technique, sampling criteria, selection and development of study instruments, reliability, pilot study, data collection procedure, plan for data analysis .

CHAPTER IV

ANAYLSIS AND INTERPRETATION

Analysis is defined as the method of organizing data in such a way that the research question can be answered. Interpretation is the process of the results and of examining the simplification of findings with a broader context (Polit, 2012).

This chapter deals with the analysis and interpretation of data including both descriptive and inferential statistics. Statistics is the field of study concerned with the techniques and method of collection of data, classification and summarizing, interpretation, drawing inferences, testing of hypothesis, making recommendations (Mahajan, 2010).

Data analysis for this study was done on the basis of the objective and hypothesis of the study. The data were entered into the master coding sheet and the analysis of the study made. Descriptive and inferential statistics was used by the investigator for analysis. Tabulation and interpretation of the data was done using descriptive and inferential statistics.

Organization of the findings

The findings of the study were organized and have been presented under the following headings.

- Frequency and Percentage Distribution of Demographical Variables of Intellectually Disabled Girls. (Table 1)
- Frequency and Percentage Distribution of Menstrual Hygiene among

Intellectually Disabled Adolescents. (Table2)

- Level of Awareness of Menstrual Hygiene among Intellectually Disabled Adolescents (Table 3)
- Level of Compliance with Menstrual Hygiene among Intellectually Disabled Adolescents (Table 4).
- Comparison of Mean and Standard Deviation of Pre-test and Post-test of Menstrual Hygiene Awareness among Intellectually Disabled Adolescents (Table 5).
- Comparison of Mean and Standard Deviation of Pre-test and Post-test of Menstrual Hygiene Compliance among Intellectually Disabled Adolescents (Table 6).
- Correlation between Awareness and compliance scores regarding Menstrual Hygiene among Intellectually Disabled Adolescents (Table 7).
- Frequency and percentage distribution of level of satisfaction regarding video assisted teaching upon awareness and compliance of menstrual hygiene among intellectually disabled adolescents (Table 8).
- Association between the Selected Variables and the Level of Awareness about Menstrual hygiene among Intellectually Disabled Adolescents (Table 9).
- Association between the Selected Variables and the Level of Compliance about Menstrual hygiene among Intellectually Disabled Adolescents (Table 10).

Table 1

Frequency and Percentage Distribution of Demographical Variables of Intellectually Disabled adolescents.

| (N=30) | | |
|---|----------|----------|
| Demographic variables | n | P |
| Age in years | | |
| 10-11 | 3 | 10 |
| 12-13 | 13 | 43.3 |
| 14-15 | 14 | 46.7 |
| Education | | |
| Trainable | 14 | 46.7 |
| Educable | 16 | 53.3 |
| Type of family | | |
| Nuclear | 9 | 30 |
| Joint | 21 | 70 |
| Educational status of mother | | |
| Illiterate | 19 | 63.3 |
| Primary education | 4 | 13.3 |
| Secondary education | 2 | 6.7 |
| Highersecondary education and above | 5 | 16.7 |
| Occupation of mother | | |
| Home makers | 24 | 80 |
| Employed | 6 | 20 |
| Monthly family income | | |
| Upto 5000 | 3 | 10 |
| 5001-10,000 | 3 | 10 |
| 10001-20000 | 3 | 10 |
| Not known | 21 | 70 |
| Previous knowledge regarding menstrual hygiene | | |
| Yes | 22 | 73.3 |
| No | 8 | 26.7 |
| If yes, sources of information | | |
| Mother | 13 | 43.3 |
| Sister | | |
| Relative | | |
| Friends | | |
| Teacher | 17 | 56.7 |

Table 1 shows that 46.7% of participants were aged 14-15 years and 70% belonged to joint family. A majority of them were illiterates 63.3%, homemakers where 80% and their income was not known 70%, had previous knowledge about menstrual hygiene 73.3% and the source of information was from the teachers 56.7%.

Table:2

Frequency and Percentage Distribution of Menstrual History among Intellectually Disabled Adolescents.

| (N=30) | | |
|--|----|------|
| Variables | n | P |
| Age at menarche | | |
| Up to 13 | 16 | 53.3 |
| Above 13 | 14 | 46.7 |
| Frequency of menstruation | | |
| Up to 30 days | 18 | 60 |
| Above 30 days | 12 | 33.3 |
| History of dysmenorrheal | | |
| Yes | 20 | 66.7 |
| No | 10 | 33.3 |
| History of other menstrual problems | | |
| Yes | 12 | 40 |
| No | 18 | 60 |

Table 2 indicates that ,more than half of them attained menarche before 13 years (53.3%), 60% of them had menstrual cycle once in a month, a majority of them had complaints of dysmenorrhoea (66.7%), and did not have any other problems. (60%).

Table 3

Level of Awareness about Menstrual Hygiene among Intellectually Disabled Adolescents.

(N=30)

| Awareness | Pre –test | | Post- test | |
|----------------|-----------|-----|------------|------|
| | n | P | n | P |
| Good | 0 | - | 4 | 13.3 |
| Average | 0 | - | 19 | 63.3 |
| Poor | 30 | 100 | 7 | 23.3 |

Table 3 indicates the awareness was poor in pre-test (100%), where us in post-test that majority of their awareness was average (63.3%).

Table 4

Level of Compliance about Menstrual Hygiene among Intellectually Disabled Adolescents.

(N=30)

| Compliance | Pre-test | | Post – test | |
|------------|----------|-----|-------------|----|
| | n | P | n | P |
| Good | - | - | - | - |
| Average | - | - | 27 | 90 |
| Poor | 30 | 100 | 3 | 10 |

Table 4 indicates, compliance was poor in pre-test (100%), where us in post –test most of their practice was average (90%).

Table 5

Comparison of Mean and Standard Deviation of Pre test and Post test of Menstrual Hygiene Awareness scores among Intellectually Disabled Adolescents.

(N=30)

| Awareness | Maximum score | Mean | MD | SD | t value | P value |
|------------------|----------------------|-------------|-----------|-----------|----------------|----------------|
| Pre test | 13 | 3.7 | 4.5 | 1.5 | 9.54 | P <0.001 |
| Post test | 13 | 8.2 | | 2.27 | | |

Table 5 indicates the mean score of awareness on menstrual hygiene as higher in post test (2.27) than the pre-test scores (1.5) which was statistically significant ($p < 0.001$). This can be attributed to the effectiveness of intervention on improving the knowledge. Hence the H_0 , “there will be no significant difference in the awareness on menstrual hygiene between before and after video assisted teaching among intellectually disabled adolescents,” was rejected.

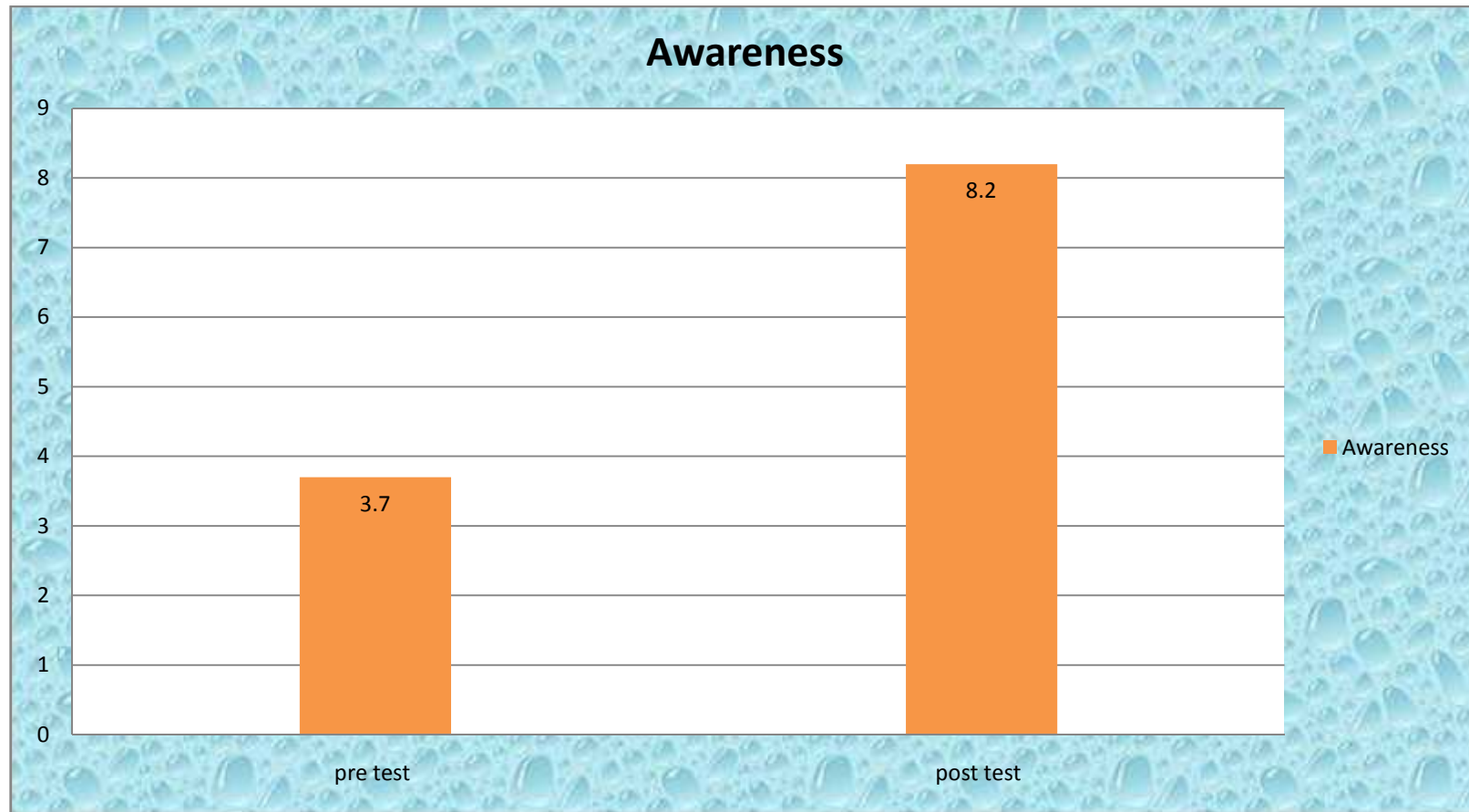


Fig .3 Comparisons of Pre Test and Post Test of Menstrual Hygiene Awareness Among Intellectually Disabled Adolescents

Table 6

Comparison of Mean and Standard Deviation of Pre test and Post test of Menstrual Hygiene Compliance scores among Intellectually Disabled Adolescents.

(N=30)

| Compliance | Maximum score | Mean | MD | SD | t value | P value |
|------------|---------------|------|-----|------|---------|---------|
| Pre-test | 20 | 6.5 | | 1.36 | | |
| Post-test | 20 | 12.2 | 5.6 | 1.8 | 12.14 | P<0.001 |

Table 6 indicates that, mean score of compliance on menstrual hygiene is higher in post test (12.2) than the pre-test scores (6.5) which was statistically significant ($p<0.001$). It can be attributed to the effectiveness of intervention on improving the compliance. Hence the H_0 , “ there will be no significant difference in the compliance on menstrual hygiene between before and after video assisted teaching among intellectually disabled adolescents,” was rejected.

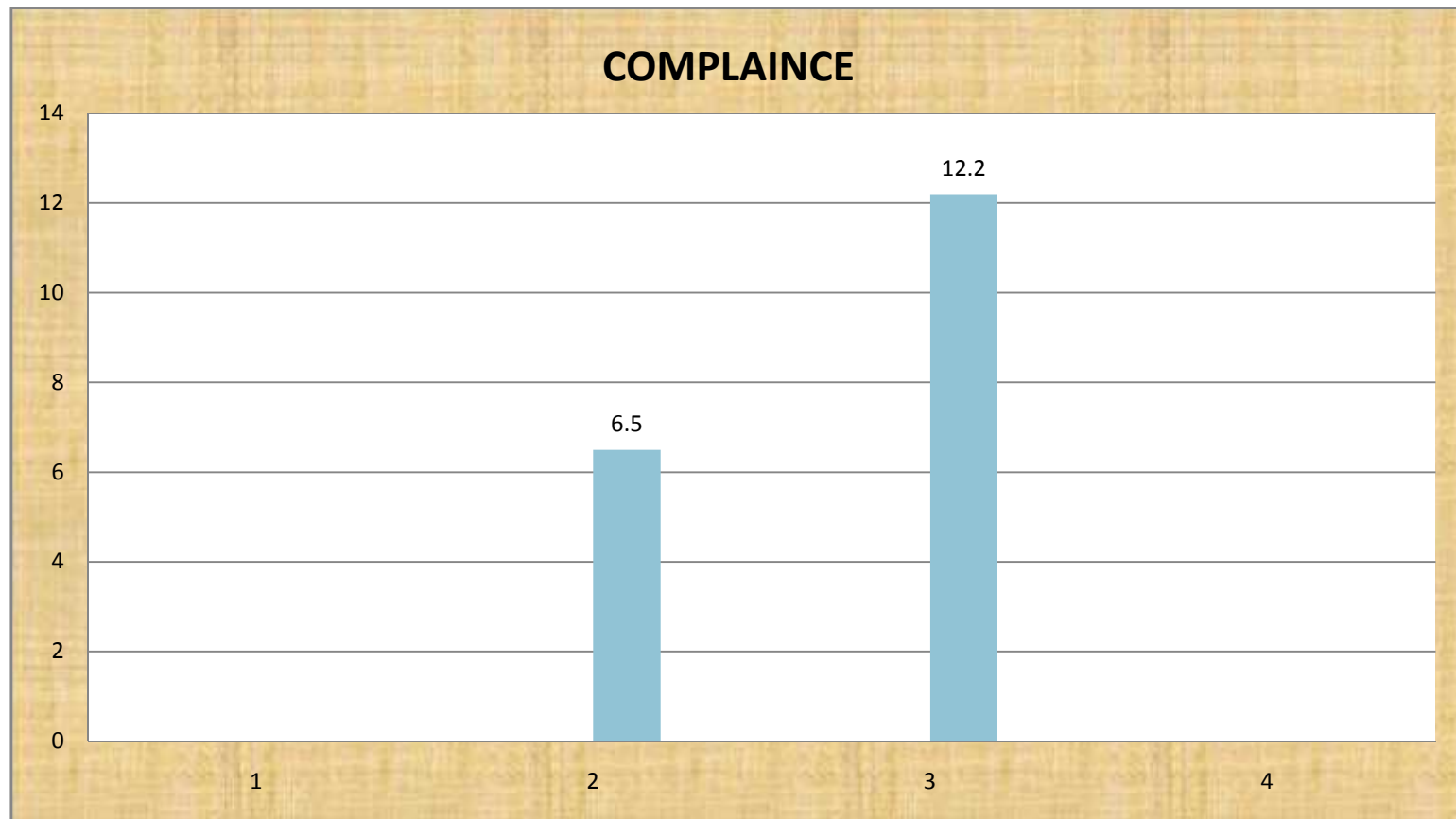


Fig .3 Comparison of Pre Test and Post Test of Menstrual Hygiene Compliance Among Intellectually Disabled Adolescents

Table 7

Correlation between Awareness Scores and Compliance Scores Regarding Menstrual Hygiene among Intellectually Disabled Adolescents

(N=30)

| Variables | Pre test | | | | Post test | | | |
|------------|----------|-----|-------|---------|-----------|------|-------|---------|
| | Mean | SD | r | P value | Mean | SD | r | P value |
| Awareness | 3.7 | 1.5 | 0.128 | p>0.05 | 8.2 | 2.27 | 0.137 | p>0.05 |
| Compliance | 6.5 | 1.3 | | | 12.2 | 1.89 | | |

Table 7 indicates that there is positive correlation between awareness and compliance scores regarding menstrual hygiene among intellectually disabled adolescents, which is not significant (p>0.05)

Table 8

Frequency and percentage distribution of level of satisfaction regarding video assisted teaching upon Awareness and Compliance of menstrual hygiene among Intellectually Disabled Adolescents.

(N=30)

| Level of Satisfaction | Highly Satisfied | | Satisfied | | Dissatisfied | | Highly Dissatisfied | |
|------------------------------------|-------------------------|----------|------------------|----------|---------------------|----------|----------------------------|----------|
| | n | P | n | P | n | P | n | P |
| Overall Satisfaction | 18 | 60 | 12 | 40 | - | - | - | -- |
| Related to video assisted teaching | 25 | 83 | 5 | 16.7 | - | - | - | - |
| Outcome of video assisted teaching | 30 | 100 | - | - | - | - | - | - |
| Related to researcher | 22 | 73 | 8 | 26.7 | - | - | - | - |

Table 8 shows that most of the students were highly satisfied with all aspects of video assisted teaching on menstrual hygiene among intellectually disabled adolescents.

Table 9

Association between the Selected Variables and the Level of Awareness about Menstrual Hygiene among Intellectually Disabled Adolescents.

(N=30)

| Variables | Awareness | | | |
|---|------------------|--------------------------|--------------------|----------------|
| | Good | Average/ poor | 2 value | P value |
| Age(in years) Up to 13 Above 13 | 7 3 | 7 13 | 3.16 df=1 | P > 0.05 |
| Educational status Trainable Educable | 10 10 | 4 6 | 0.023 # df=1 | P >0.05 |
| Educational status of mother Illiterate Non-illiterate | 11 9 | 7 3 | 0.153 # df=1 | P > 0.05 |

Yates correlated value.

Table 9 indicates that there is no significant association between the selected variables and levels of awareness among menstrual hygiene among intellectually disabled adolescents. Hence the Ho4, “there will be no significant association between the selected demographic variables and awareness on menstrual hygiene among intellectually disabled adolescents,” was retained.

Table 10

Association between the Selected Variables and the Level of Compliance about Menstrual Hygiene among Intellectually Disabled Adolescents.

(N=30)

| Compliance | | | | |
|-------------------------------------|---------|------|-------------------|----------|
| Variables | Average | Poor | 2 value | P value |
| Age (in years) | | | | |
| Up to 13 | 15 | 1 | 0.0143 # df=1 | P > 0.05 |
| Above 13 | 12 | 2 | | |
| Educational status | | | | |
| Trainable | 13 | 14 | 0.024 # df= 1 | P > 0.05 |
| Educable | 1 | 2 | | |
| Educational status of mother | | | | |
| Illiterate | 13 | 2 | 0.034 # df = 1 | P > 0.05 |
| Non literate | 14 | 1 | | |

Yates corrected value

Table 10 depicts that, there is no significant association between the selected variables and levels of compliance on menstrual hygiene among intellectually disabled adolescents. Hence the Ho5, “there will be no significant association between the selected demographic variables and awareness on menstrual hygiene among intellectually disabled adolescents,” was retained.

Summary

This chapter dealt with the analysis and the interpretation of data obtained by the researcher. The analysis showed improvement in the awareness and compliance about menstrual hygiene among intellectually disabled adolescents after the video assisted teaching .This implied that video assisted teaching was effective in improving the awareness and compliance on menstrual hygiene among intellectually disabled adolescents.

CHAPTER V

DISCUSSION

This chapter deals with the discussion of the results of the data analyzed based on the objectives of the study and the hypothesis. The problem stated was ‘A pre experimental study to assess the effectiveness of video assisted teaching upon awareness and compliance of menstrual hygiene among intellectually disabled adolescents girls in special schools at Chennai.’

The research design used in this study design was pre experimental. The study was done among 30 intellectually disabled adolescent girls at selected special schools. The data collected data from the samples were tabulated, analyzed and interpreted using both descriptive and inferential statistical methods. The results are discussed as follow:

Demographical variables

Study findings revealed that 46.7% of them were aged 14-15 years and (70%) belonged to joint family. A majority of them were illiterates (63.3%), Homemakers (80%) and their income was not known (70%), Had previous knowledge about menstrual hygiene (73.3%), and the source of information was from the teacher (56.7%).

History of menstrual hygiene

The first objective of the study was to assess the level of awareness and compliance regarding Menstrual Hygiene among Intellectually Disabled Adolescents.

Study findings indicate that, all of their awareness was poor in pre-test 100%, where us in post-test that majority of their awareness was average 63.3%. Study findings indicate that, all of their compliance was poor in pre-test 100%, where us in post –test most of their practice was average 90%.

It indicates the fact that, it is a challenge for intellectually disabled adolescents to maintaining good menstrual hygiene. Therefore, nurses and teachers play major role on educating and training intellectually disabled adolescents, to follow healthy menstrual hygiene practice.

This was supported by study conducted by Adhikare.et,al (2007) He conducted study to assess the knowledge on menstrual hygiene among 150 adolescents' girls of 13-15 years from 3 school shivanagar and patihani village development committees of chit wan district. The data was collected by questionnaire method and the result revealed that they did not maintain proper menstrual hygiene, 94% of them used the pads during the period but only 11.35 of them disposed it properly. Overall their knowledge score and practice score were 40.6% and 12.3% respectively.

The second objective was to evaluate the effectiveness of video assisted teaching upon awareness of menstrual hygiene among intellectually disabled adolescents

Study findings indicate that, mean score of awareness on menstrual hygiene was higher in post test (8.2) than the pre-test scores (3.7) which was statistically significant ($p < 0.001$). It can be attributed to the effectiveness of intervention on improving the knowledge. Hence the H_{o1} , “there will be no significant difference in the awareness on menstrual hygiene between before and after video assisted teaching among intellectually disabled adolescents,” was rejected.

The third objective was to evaluate the effectiveness of video assisted teaching upon compliance of menstrual hygiene among intellectually disabled adolescents

Study findings indicate that, mean score of compliance on menstrual hygiene was higher in post test (12.2) than the pre-test scores (6.5) which was statistically significant ($p < 0.001$). It can be attributed to the effectiveness of intervention on improving the compliance. Hence the H_{o2} , “there will be no significant difference in the compliance on menstrual hygiene between before and after video assisted teaching among intellectually disabled adolescents,” was rejected.

Hence the overall findings reflect that there was a significant improvement in the level of awareness and compliance after the video assisted teaching. Hence the null hypothesis stated that there will not be any significant differences in the pre-test and post-test level of awareness and compliance regarding menstrual hygiene among intellectually disabled adolescent girls at $p < 0.001$ was rejected.

The fourth objective of the study was to find out the correlation between Awareness and Compliance Scores Regarding Menstrual Hygiene among Intellectually Adolescents.

The findings implies that there was a positive correlation ($r=0.12$),($r=0.13$) between awareness and compliance regarding menstrual hygiene among intellectually disabled adolescents in pre test and post test respectively .

Similar findings are also reported in study conducted by Shivaleela (2015) on assessment of knowledge and practice of menstrual hygiene among high school girls in western Ethiopia, In this study, 60.9% and 33.9% respondents had good knowledge and practice of menstrual hygiene respectively. The findings of the study showed a significant positive association between good awareness and compliance of menstruation. The study revealed significant positive association with good practice of menstruation hygiene.

The fifth objective was to assess the association between level of awareness regarding menstrual hygiene among intellectually disabled adolescents selected demographical variables.

Study findings indicate that there is no significant association between the selected variables and levels of awareness on menstrual hygiene among intellectually disabled adolescents. Hence the H_0 , “there will be no significant association between the selected demographic variables and awareness on menstrual hygiene among intellectually disabled adolescents “, was retained.

The sixth objective was to assess the association between level of compliance regarding menstrual hygiene among intellectually disabled adolescents selected demographical variables.

The study depicts that, there is no significant association between the selected variables and levels of compliance on menstrual hygiene among intellectually disabled adolescents. Hence the Ho5, “there will be no significant association between the selected demographic variables and compliance on menstrual hygiene among intellectually disabled adolescents”, was retained.

The study concluded by insisting that girls should be educated about the process and significance of menstruation, use of proper pads or absorbents and its proper disposal. This can be achieved by giving them proper training and health education so that there won't be any misconception to adolescent girls regarding menstrual hygiene.

Hence the conceptual framework the skeleton supporting the present study that proved the effectiveness of the video assisted teaching upon awareness and compliance of menstrual hygiene among intellectually disabled adolescent girls.

Summary

This chapter deals with the objectives of the study, level of awareness and compliance of the menstrual hygiene , major findings of the demographic and menstrual history, among intellectually disabled adolescents after video assisted teaching up on awareness and compliance of menstrual hygiene. Mean ,SD of menstrual hygiene between pre test and post test of menstrual hygiene awareness and compliance among intellectually disabled adolescents, correlation of the awareness and compliance among intellectually disabled adolescents, association between the pre-test and post-test of menstrual hygiene awareness and compliance among intellectually disabled adolescents.

CHAPTER VI

SUMMARY, CONCLUSION, IMPLICATION AND RECOMMENDATION

The core area of the study is completed through the report writing of the study findings. While in the process of report writing, the researcher briefly concise the whole project so that it will be useful for the future references. This particular chapter deals with the summary, conclusion, implications, recommendations and limitations of the study.

Summary

The aim of the study was to assess the effectiveness of video assisted teaching upon awareness and compliance of menstrual hygiene among intellectually disabled adolescents in special schools at Chennai

Objectives of the study

1. To assess the awareness and compliance regarding menstrual hygiene among intellectually disabled adolescents.
2. To evaluate the effectiveness of video assisted teaching upon awareness of menstrual hygiene among intellectually disabled adolescents.
3. To evaluate the effectiveness of video assisted teaching upon compliance of

menstrual hygiene among intellectually disabled adolescents.

4. To find out the correlation between awareness scores and compliance scores regarding menstrual hygiene among intellectually disabled adolescents..
5. To assess the level of satisfaction regarding video assisted teaching programme among intellectually disabled adolescents.
6. To find out the association between selected demographic variables and level of awareness on menstrual hygiene among intellectually disabled adolescents.
7. To find out the association between selected demographic variables and level of compliance on menstrual hygiene among intellectually disabled adolescents

Null Hypothesis

Ho1- There will be no significant difference in the awareness on menstrual hygiene between before and after video assisted teaching among intellectually disabled adolescents.

Ho2- There will be no significant difference in the compliance on menstrual hygiene between before and after video assisted teaching among intellectually disabled adolescents.

Ho3- There will not any correlation between awareness and compliance scores on menstrual hygiene in pre test and post test among intellectually disabled adolescents.

Ho4- There will be no significant association between the selected demographic variables and awareness on menstrual hygiene among intellectually disabled adolescents.

Ho5- There will be no significant association between the selected demographic variables and compliance on menstrual hygiene among intellectually disabled adolescent

Major Finding of the study

Demographical Variables of Intellectually Disabled adolescents.

Study findings indicate that 46.7% of them were aged 14-15 years and 70% belonged to joint family. Majority of them were illiterates 63.3%, Homemakers 80% and their income was not known 70%, Had previous knowledge about menstrual hygiene 73.3%, and the source of information was from the teacher 56.7%.

Level of Awareness and compliance about Menstrual Hygiene away Intellectually Disabled Adolescents.

The study findings indicate that, awareness was poor in pre-test 100%, where us in post-test majority of their awareness was average 63.3%. The study findings also indicate that, all of their compliance was poor in pre-test 100%, where us in post –test most of their compliance was average 90%.

Comparison of Mean and Standard Deviation of Pre test and Post test of Menstrual Hygiene Awareness scores among Intellectually Disabled Adolescents.

The study findings indicate, that mean score of awareness on menstrual hygiene was higher in post test (8.5) than the pre-test scores (4.06) which was statistically significant ($p < 0.001$). It can be attributed to the effectiveness of intervention on improving the knowledge. Hence the H_{01} , “there will be no significant difference in the awareness on menstrual hygiene between before and after video assisted teaching among intellectually disabled adolescents”, was rejected.

Comparison of Mean and Standard Deviation of Pre test and Post test of Menstrual Hygiene Compliance scores among Intellectually Disabled Adolescents

The study findings revealed that, mean score of compliance on menstrual hygiene was higher in post test (12.2) than the pre-test scores (6.5) which was statistically significant ($p < 0.001$). It can be attributed to the effectiveness of intervention on improving the practice. Hence the H_{02} , “there will be no significant difference in the compliance on menstrual hygiene between before and after video assisted teaching among intellectually disabled adolescents”, was rejected

After conducting the pre-test, the investigator provided the education(input) regarding menstrual hygiene through video assisted teaching (throughput). The post – test level of the awareness and compliance was assessed, which showed a significant difference in the level of awareness and compliance (output) when compared to the

pre-test as shown in the conceptual framework, which also proved the effectiveness of the video assisted teaching. The intellectually disabled adolescent girls who had adequate awareness and good compliance has been reinforced and who had inadequate awareness and poor compliance has been reassessed at the end of the study.

Correlation between awareness scores and compliance scores regarding menstrual hygiene among intellectually disabled adolescents

The findings implies that there was a positive correlation ($r=0.12$), ($r=0.13$) between the awareness and compliance regarding menstrual hygiene among intellectually disabled adolescents in pre test and post test respectively.

Association between the Selected Variables and the Level of Awareness about Menstrual Hygiene among Intellectually Disabled Adolescents.

The study findings revealed that, there is no significant association between the selected variables and levels of awareness among menstrual hygiene among intellectually disabled adolescents. Hence the H_0 4,"there will be no significant association between the selected demographic variables and awareness on menstrual hygiene among intellectually disabled adolescents ,"was retained. Hence the conceptual framework the skeleton supporting the present study that proved the effectiveness of the video assisted teaching upon awareness and compliance of menstrual hygiene among intellectually disabled adolescent girls.

Association between the Selected Variables and the Level of Compliance about Menstrual Hygiene among Intellectually Disabled Adolescents.

The study depicts that, there is no significant association between the selected variables and levels of compliance on menstrual hygiene among intellectually disabled adolescents. Hence the Ho5, “there will be no significant association between the selected demographic variables and compliance on menstrual hygiene among intellectually disabled adolescents”, was retained.

Conclusion

The finding of the study has aimed to assess the effectiveness of video assisted teaching upon awareness and compliance on menstrual hygiene among intellectually disabled adolescent girls. The study concludes that there is need to improve the level of awareness and compliance of menstrual hygiene among intellectually disabled adolescent girls .Therefore to educate, incorporate and to provide a realistic learning regarding hygiene compliance among intellectually disabled adolescents , video assisted teaching and other strategies regularly to improve awareness and compliance of menstrual hygiene among intellectually disabled adolescents should be used.

Implications

Based on the findings of the study, the researcher recommends the implications on nursing practice, nursing implication, nursing services, nursing education, nursing administration, and nursing research.

Nursing practice

As members of health team, nurses should play a crucial role in preventing health hazards the health status of the society. Nurses should create awareness on emerging reproductive tract infection among adolescent girls. Health education packages should be conducted on regular basis in all schools by the school health nurse. Video assisted teaching can be used as an effective tool in educating the intellectually disabled adolescent girls.

Nursing education

Nursing education should emphasize on promotion of menstrual health and prevention of reproductive tract infections. Every student should be encouraged to provide information and conduct health teaching programmers for intellectually disabled adolescents.

Nursing administration

Since the Video assisted teaching is effective in improving the menstrual hygiene among intellectually disabled adolescents, nursing administrators should take

leadership role and motivate nursing personnel to conduct health education packages for intellectually disabled adolescents in special schools.

Nursing Research

The study can be used by the school health nurses in training intellectually disabled adolescents. Similar studies can be conducted on a large sample, so that the results could be generalized.

Recommendations

1. Study can be conducted on large sample to generalize the findings.
2. Study can be conducted to assess the effectiveness of video assisted system on menstrual hygiene as a teaching aid in health education for other differently abled children.
3. Studies can be conducted to assess the effectiveness of alternate learning modalities to improve hygiene compliance for all the differently abled children.
4. A survey can be done on intellectually disabled adolescent girls to assess the compliance and difficulties during menstruation.
5. A study can be conducted to assess the level of awareness on menstrual hygiene among care takers and teachers of differently abled.

Limitations

1. Study findings cannot be generalised due to small sample size.
2. True experimental study could not be conducted, due to lack of samples.
3. Only limited literatures and studies regarding video assisted teaching on menstrual hygiene among intellectually disabled adolescents were available.

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